

CLINICAL/MEDICAL/LABORATORY
FACILITIES REQUESTS FOR
DISPOSAL INFO

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DESCRIPTION:

2nd Medical Logistics

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Memorandum

6240
NREAD

DATE: 16 Apr 1986

FROM: Director, Natural Resources and Environmental Affairs Division,
Marine Corps Base, Camp Lejeune
TO: Assistant Chief of Staff, Facilities, Marine Corps Base, Camp
Lejeune

SUBJ: DISPOSAL OF PHOTOCHEMICAL SUPPLIES STORED AT BUILDING 914,
HADNOT POINT

Incl: (1) Quantity and Chemical Makeup of Photochemical Supplies

1. On 10 April 1986 NREAD was contacted to assist Medical Logistics Company, 2d FSSG, with the disposal of 8,132 gallons of photochemical supplies that have an expired shelf life. 141 five-gallon containers of Part A of the three-part solution were found to be leaking onto the warehouse deck and adjacent boxes. Because of the corrosive nature of this liquid, the bladders have been emptied into 55-gallon polyethylene drums.

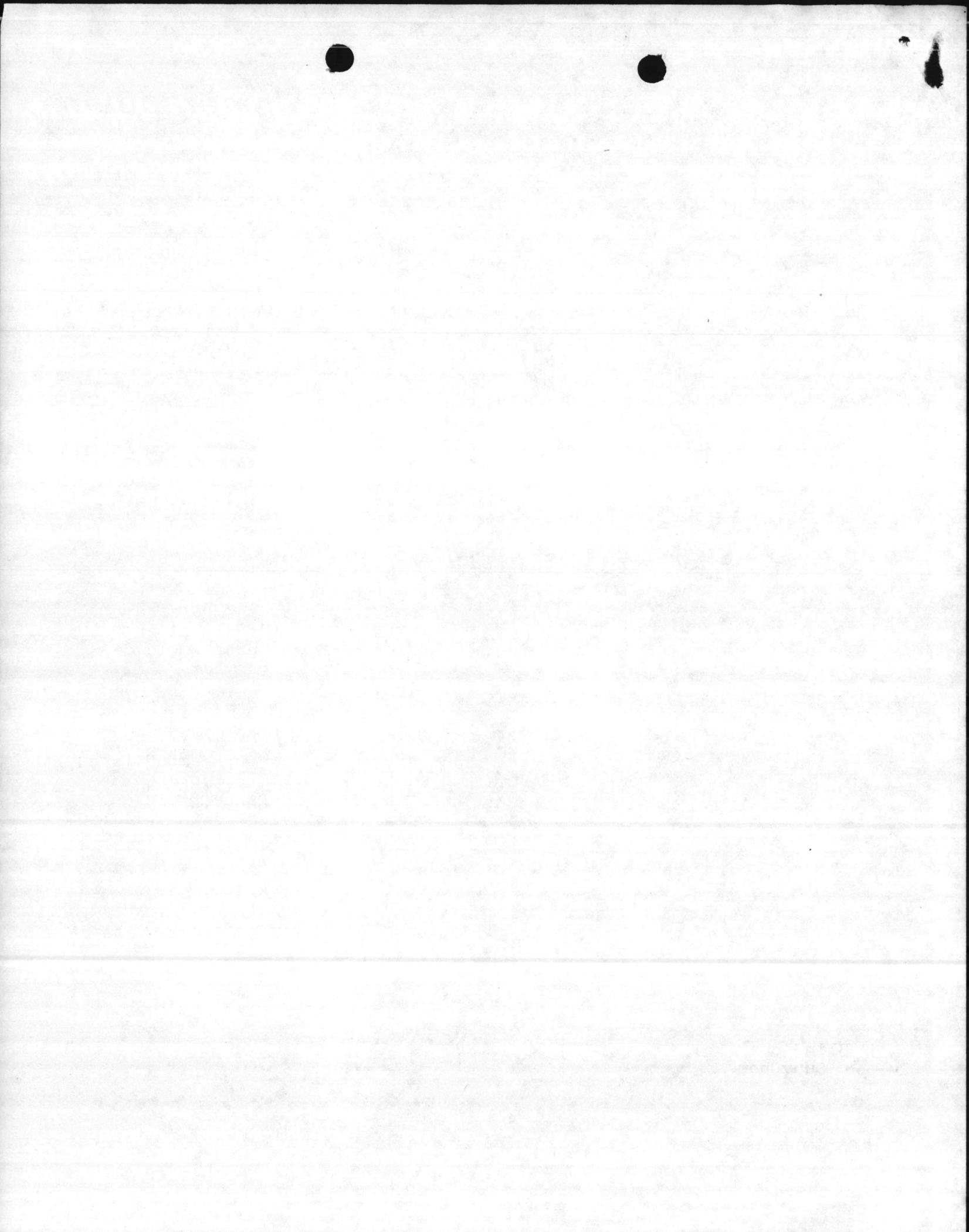
2. NREAD personnel have consulted Ensafe Environmental Consultants, MEDLOG Company, and Defense Reutilization and Marketing Officer (DRMO) representatives. The two alternatives for disposal of the subject materials are DRMO disposal contract and discharge at a controlled rate (with or without pretreatment) into the sanitary sewer. Cost of disposal under the current DRMO contract would be \$24,396.00.

3. It is recommended that DRMO take accountability for the subject materials and pursue disposal. Should DRMO not be able to accomplish timely, economical disposal, it is recommended that disposal into the sanitary sewer be accomplished under procedures established by and under the direct supervision of the appropriate representative of the Director, Utilities Branch, Base Maintenance Division. It is anticipated that the 705 gallons in polyethylene drums will require immediate disposal. Point of contact in this matter is Mr. Danny Sharpe, 5003/2083.

J. I. WOOTEN

Copy to:
BMO
DRMO

Blind copy to:
→ SupvChem



PHOTOCHEMICAL SUPPLIES - DEVELOPER, PHOTOGRAPHIC
NSN 6525-00-975-0611

PART A. 705 gallons in polyethylene 55-gallon drums

6,550 gallons in 5-gallon bladders

7,255 gallons total

Chemical Makeup

Potassium Hydroxide 5-10%

Potassium Sulfite 10-15%

Hydroquinone 5-10%

Diethylene Glycol 1-5%

Water 55-60%

PART B. 378 gallons in 1/2 gallon bottles

70.5 gallons in 1 quart bottles

448.5 gallons total

Chemical Makeup

Diethylene Glycol 50-55%

Acetic Acid 35-40%

1-Phenyl-3-Pyrazolidinone 5-10% (trademark Phenidone)

PART C. 378* gallons in 1/2 gallon bottles

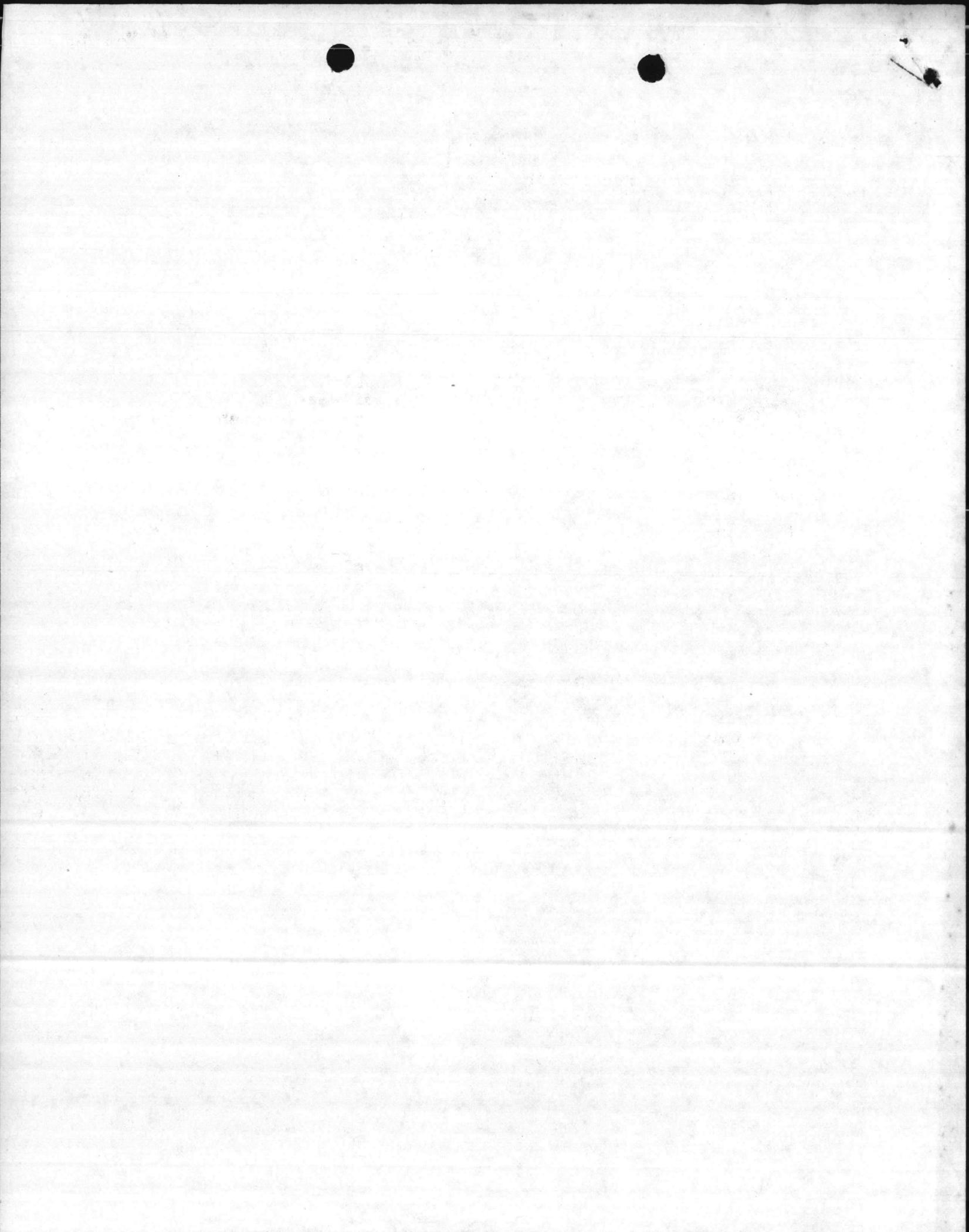
70.5 gallons in 1 quart bottles

Chemical Makeup

Adehyde Bisulfate 20-25%

Glutaraldehyde 10-15%

Water 60-70%





DEPARTMENT OF THE NAVY
NAVAL HOSPITAL
CAMP LEJEUNE, NORTH CAROLINA 28542

53:DDM:slb
6700
3 July 1984

From: Head, Pharmacy Department
To: Head, Branch Clinics

Subj: PROPER DISPOSAL OF EXPIRED OR DEFECTIVE MEDICAL MATERIAL

Ref: (a) NHCLNC Instruction 6700.4D
(b) NHCLNC Instruction 6280.1

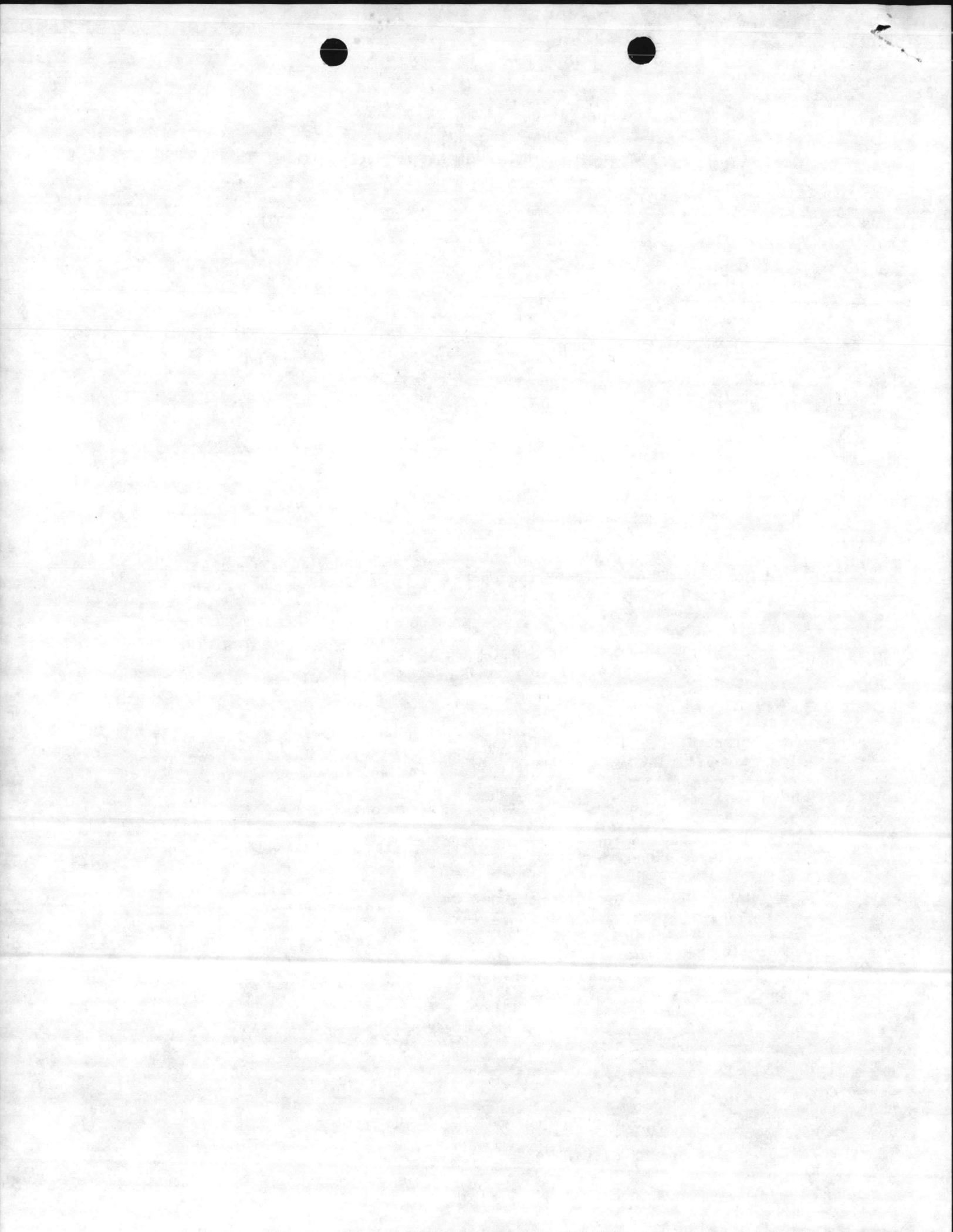
Encl: (1) Naval Medical Materiel Support Command Guidelines on Precautions
in Disposal of Medical Material, Extract from NMDMB 11-83

1. Proper destruction of expired/defective medications has been a source of confusion to several areas of this command.
2. Reference (a) provides guidance on the proper destruction of needles and syringes and affords Branch Clinics the opportunity to develop their own methods of destruction within their areas.
3. Enclosure (1) outlines the precautions to be taken when disposing of medications and their containers. Branch Clinics are to dispose of their own expired/defective medical material in accordance with any policies established by Head, Branch Clinics.
4. The Laboratory Service, HMI Wilson, of Naval Hospital will provide assistance in the destruction of live biological agents for areas lacking autoclave or incineration capabilities as long as the following guidelines are met:
 - a. The medical material is presented in sealed containers.
 - b. They are wrapped in the orange biohazard bags tagged with contents and location from where contents originated.
5. These guidelines do not apply to the disposal of infectious waste which are to be handled in accordance with reference (b).
6. It is requested that these guidelines be widely disseminated to assure as many medical personnel as possible are familiar with disposal procedures.

D. D. MCKENZIE
D. D. MCKENZIE

Copy to:
Head, Material Management
Medical Logistics Company, 2d Supply Bn, 2d FSSG (Info)
LCDR Parks, Laboratory Department
LTJG Morrow, Pharmacy Branch Clinics Representative
Mrs. Martel, CSR
Mr. Marks, Purchasing

*Anesthesia: Sol. should be out of
vials - empty vials are out*





FORM 11-53

NOTES OF INTEREST AND GUIDANCE

A. PRECAUTIONS IN DISPOSAL OF MEDICAL MATERIAL

All medical department personnel are cautioned that defective or expired medical material should be disposed of in a manner to ensure the drug/biological is rendered non-recoverable for use and harmless to the environment. As stated in DD Manual 4160.21M, Defense Property Disposal Manual, "Destruction will be complete to preclude use of the drug or any portion thereof."

The following disposal procedures are recommended:

(1) Tablets, Capsules, Powders: Remove from the original container, crush or break tablets and capsules, and flush into the sewage systems. Dispose of the original container as trash.

(2) Syrettes: Cut along crimped end of the syrette and express contents into sewage system. Crush the syrettes and needle assemblies and dispose of them as trash.

(3) Injectables/Parenterals: Remove the stoppers from the bottles or open vials as directed, then express contents into sewage system. Dispose of bottles/vials as trash.

(4) Auto Injectors: Activate the injector against a suitable hard surface and express contents into a suitable container. Dump the contents of the container into the sewage system and then crush the auto injector, disposing of it as trash.

(5) Biologicals: Whether dried or suspended in liquid, these must be, (1) incinerated, (2) injected with a sterilizing agent sufficient to kill the live biological agent, or (3) pressure steam sterilized. If one of the latter procedures is used the sterilized contents of the containers should be emptied into the sewage system and the containers disposed of as trash.

Survey and destruction of controlled substances, narcotics and alcohol must be witnessed by the Controlled Medicinals Inventory Board, and the method of destruction and manner of disposal must be noted on the survey report.

Destruction of the above materials should be accomplished in a well ventilated area. In addition, when working with liquid substances subject to absorption through the skin the wearing of neoprene rubber gloves is advised and thorough handwashing should follow in every case. Wearing of protective goggles may also be indicated.

When surplus drugs (including controlled substances) biologicals and reagents are required to be destroyed by the generating installation, they shall be destroyed in such a manner as to ensure total destruction of the substance to preclude the utilization of any portion thereof. The destruction will be in accordance with Federal, State and local air and water pollution control standards. When major amounts are to be destroyed, the action shall be coordinated with local air and water pollution control authorities.

B. SECURITY OF CONTROLLED SUBSTANCES

When inventorying or receipting for Controlled Medicinals, it is important that the container be examined for evidence of tampering. In reported

cases it has appeared that the seal for the opening of a bottle of capsules or tablets may have been partially or totally removed and replaced. This may be clue that some or all of the contents have been removed or exchanged. Some of the things to look for are:

- (1) Is the seal as tight as normal?
- (2) Is the glue around the seal uniform and similar to containers previously received?
- (3) Is the glue excessive?
- (4) Are the contents correct?

Inspecting the container at the time of receipt could eliminate future difficulties in accountability.

C. POLICY REGARDING LOCAL PROCUREMENT OF STANDARD MATERIEL

Local purchase of any item that is normally stocked in the military medical supply system is contrary to the general policy set forth in NAVSUP Manual 22002 which is quoted in part: "Nonstandard material will not be procured when standard stock items are available except when the nonstandard material is considered to be indispensable. Maximum utilization will be made of standard stock and noncritical items in lieu of brand name, critical and extra-specification items. When the procurement of nonstandard material is considered mandatory the originating request document will be approved by the Commanding Officer or by his authorized representative and will contain a certification that no standard stock material is suitable."

D. MEDICAL RETURNS

Review of medical materiel returns into the Defense Logistics Agency Materiel Distribution System indicates that shipments have been returned to Defense depots which do not stock medical materiel. Those depots authorized to receive medical shipments are: Defense Depots Tracy, California; Memphis, Tennessee; Mechanicsburg, PA; and the Naval Supply Center, Norfolk, VA.

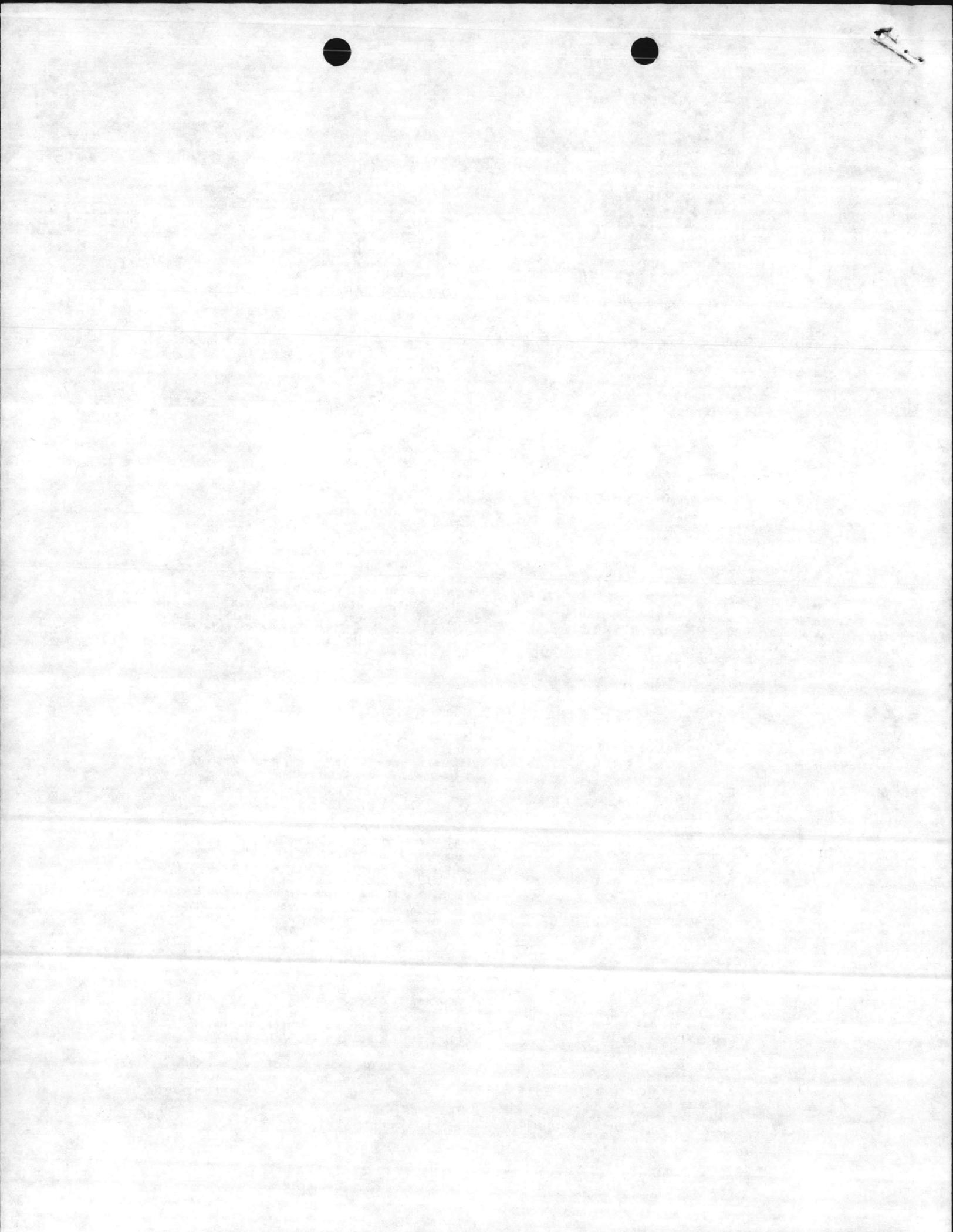
E. SHELF LIFE EXTENSION OF MICROSCOPE SLIDES

Requests for potency extension of NSN's 6640-00-074-4191 and 6640-00-494-3893 Slide, Microscope, 25 by 75 mm., 72's have been received from various commands. DPSC has advised that the shelf life of microscope slides may be extended during the criteria in the monograph under Section III of the Quality Control Depot Serviceability Standards Manual: Appendix "M", Medical Supplies, DLAM 4155.5

F. REQUISITIONING POTENCY DATED AND SHELF LIFE MATERIAL

In response to reported incidents of units of Operating Forces receiving expired and short shelf life material from supply sources, the Naval Supply Systems Command advises that, although MILSTRIP permits only one advice code, through the use of an exception type requisition (DOCUMENT Identifier Code A05 or A0E in card column 1-3) additional advice can be provided by an entry in "Remarks" space.

ZB Requested item only will suffice. Do not



DEPARTMENT OF THE NAVY
NAVAL HOSPITAL
CAMP LEJEUNE, NORTH CAROLINA 28542-5008



NHCLNCINST 6280.1A
314
30 Jan 85

NAVHOSPCLNC INSTRUCTION 6280.1A

From: Commanding Officer

Subj: INFECTIOUS WASTE MANAGEMENT PROGRAM

Ref: (a) Draft Manual for Infectious Waste Management EPA SW 957 SEP 82
(b) JCAH Manual Current Edition
(c) NAVHOSPCLNC INST 6700.4C

Encl: (1) Guidelines for Collection and Transport of Infectious Waste
(2) Guidelines for Treatment of Infectious Waste and Guidelines for Handling Contaminated Non-disposable Linen

1. Purpose. To establish an effective Infectious Waste Management Program.

2. Cancellation. NAVREGMEDCENCLNC INSTRUCTION 6280.1.

3. Definitions

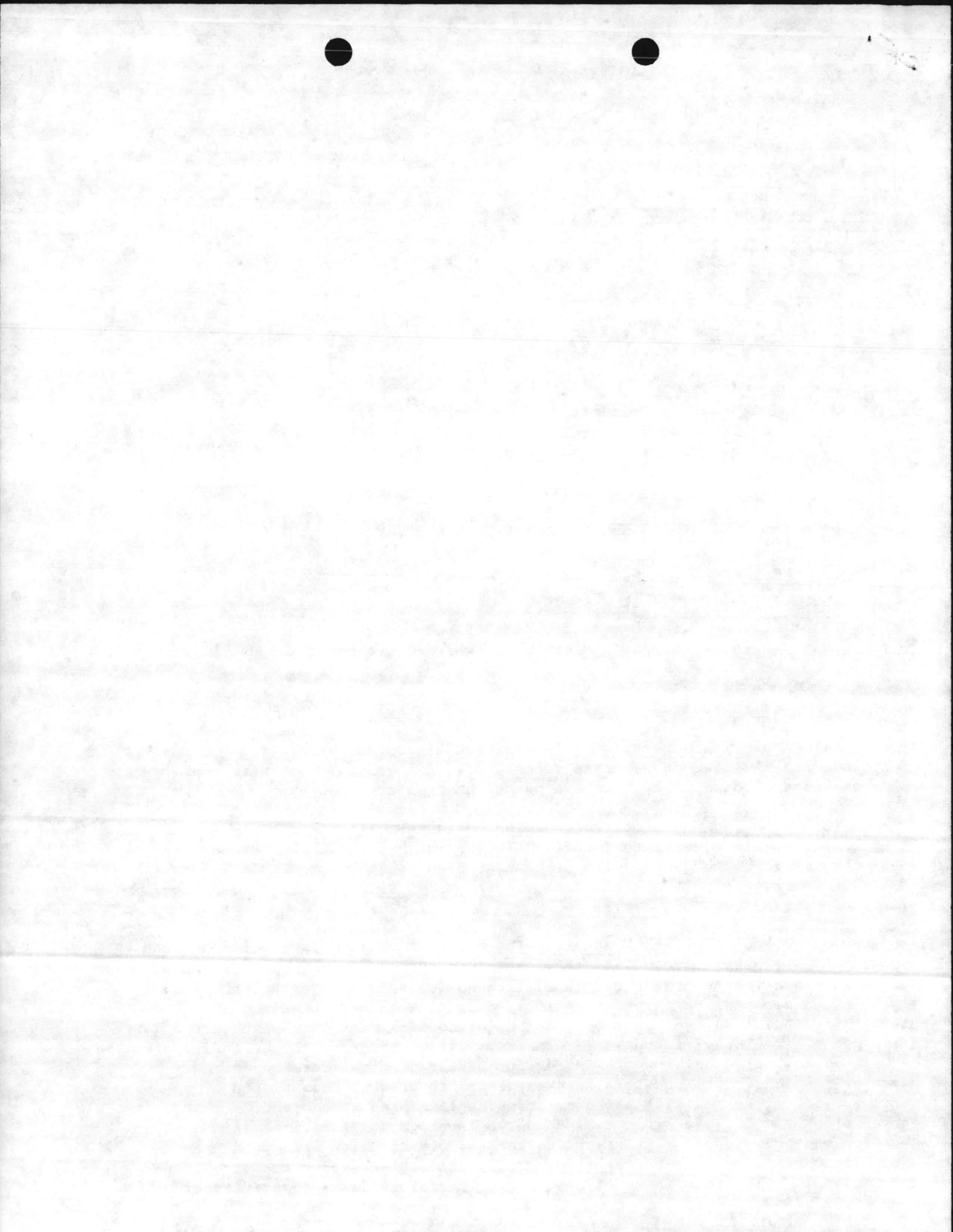
a. Infectious Waste. Waste that is capable of producing infection; pertaining to or characterized by the presence of pathogens or etiological agents that contain viable microorganisms or toxins which causes or may cause human disease.

b. Types of Infectious Waste

(1) Isolation Wastes. Wastes that are generated by hospitalized patients who are isolated in separate rooms protecting others from their communicable diseases. These wastes contain pathogens that are shed by the patients.

(2) Cultures and Stocks of Etiologic Agents. All cultures and stocks of etiologic agents constitute infectious wastes with a particular hazard because the pathogenic organisms are present at high concentration. Included in this category are cultures of specimens from medical and pathological laboratories.

(3) Blood and Blood Products. The principal hazard in blood and blood products (i.e., plasma, serum) is the possible presence of the hepatitis agent. Less common are the pathogens of other diseases (malaria, congenital rubella, disseminated neonatal Herpesvirus hominis, dengue, smallpox, Lassa fever, Farburg virus disease, yellow fever, and Colorado tick fever) in which the etiologic agent circulates in the blood. Hospitalized patients with these diseases are placed in isolation, and the Center for Disease Control recommends that blood precautions be taken with these patients "to prevent acquisition of infection...from contact with blood or items contaminated with blood." Even though blood samples are often tested in the laboratory, it is impractical to test for the presence of all infectious agents. In addition, a negative hepatitis virus test, by current technology, only demonstrates that the viral concentration is below the limits of detection. Therefore large quantities of



30 Jan 85

of blood and blood products should be managed as infectious waste regardless of test results. Hospital and medical laboratories and blood banks generate wastes in this infectious waste category.



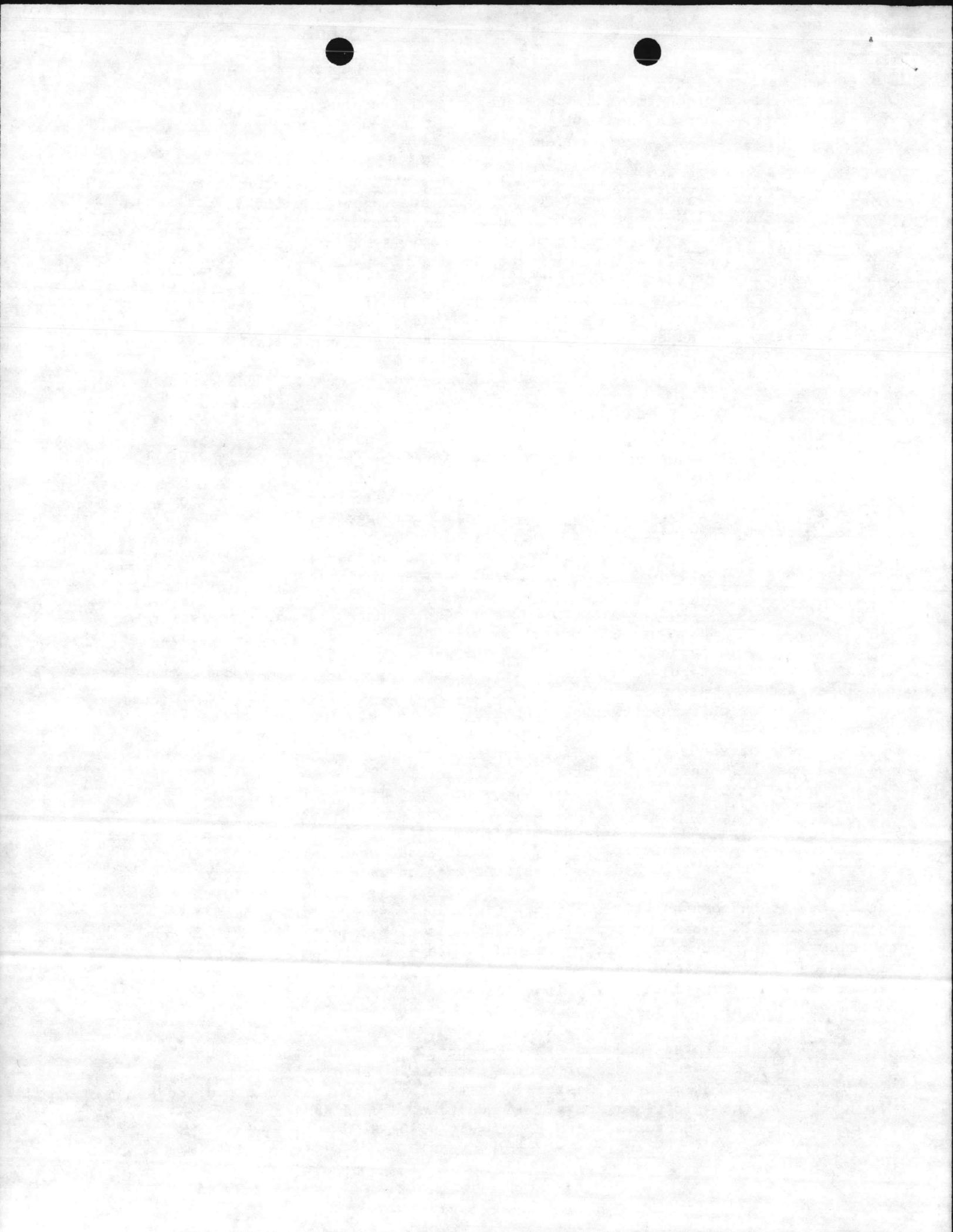
(4) Pathological Wastes. Pathological wastes consist of tissues, organs, body parts, blood, and body fluids that are removed during surgery and autopsy. Pathological wastes from patients with infectious diseases should be managed as infectious waste because of the probability that these wastes contain pathogens. However, it is prudent to handle all pathological wastes as infectious because of the possibility of unknown infection in the patient or corpse -- it has been reported that pathogens are consistently removed from the bodies of people who are certified as having died of causes other than infectious diseases. The best and simplest procedure is to manage all pathological wastes uniformly. Pathological wastes are usually generated in the hospital in the operating rooms, laboratory/pathology department including autopsy suite.

(5) Other Wastes from Surgery and Autopsy. The surgery or autopsy of septic ("Dirty") cases or patients with infectious diseases generates waste that may be contaminated with pathogens from the patient, and these wastes should be managed as infectious waste. Wastes in this category include soiled dressings, sponges, drapes, casts, lavage tubes, drainage sets, underpads, and surgical gloves. Because of the possibility of unknown disease, it is prudent to manage as infectious all wastes from surgery and autopsy that have been in contact with patient tissues, blood, body fluids, secretions, and excretions.

(6) Contaminated Laboratory Wastes. Contaminated laboratory waste refers to the wastes that were in contact with pathogens in any type of laboratory work, e.g., in medical, pathological, or other laboratories. The variety of wastes in this category includes culture dishes; devices used to transfer, inoculate, and mix cultures; and paper and cloth items that were in contact with specimens or cultures. Wastes from medical and pathological laboratories that are generated in the process of culturing patient specimens pose a special hazard because of the prevalence of resistant strains of microorganisms that have developed in hospitals and other institutions.

(7) Sharps. Discarded sharps (e.g., hypodermic needles, syringes, pasteur pipettes, broken glass, scalpel blades) present the double hazard of inducing disease and inflicting injury. The disease potential is great if the sharp was used in the treatment of a patient with an infection or infectious disease; however, even with apparently healthy persons, there is always the possibility of unknown hepatitis. Other contaminated sharps are generated in the inoculation of people or animals. All sharps also pose the hazard of physical injury through cuts or puncture wounds. With good management practices, the hazards of disease and injury from sharps can be minimized. All waste sharps should be managed uniformly in accordance with the practices established in reference (c).

(8) Contaminated Food and Other Products. Food and other products that are being discarded because of contamination with etiologic agents are infectious wastes. Examples of wastes in this category are contaminated foods, food additives, cosmetics, and drugs. In addition, canned food that is recalled because of the danger of botulism resulting from the presence of the toxin of the Clostridium botulinum bacterium should be managed as infectious





te in order to prevent exposure to the toxin, dispersal of the toxin in the environment, and access to the contaminated food.

(9) Contaminated Non-disposable Linen. Non-disposable linen that has been contaminated should be considered infectious and should be handled in accordance with the guidelines contained in enclosure (2).

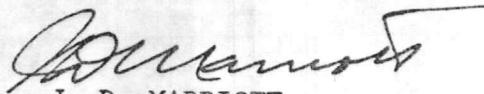
Responsibilities

- a. Directors of Service. Insure that all infectious waste, as defined in paragraph 3 is collected and transported in accordance with enclosure (2).
- b. Manpower Management, Education and Training Branch. Incorporate, infectious waste management into the inservice training curriculum.
- c. Laboratory

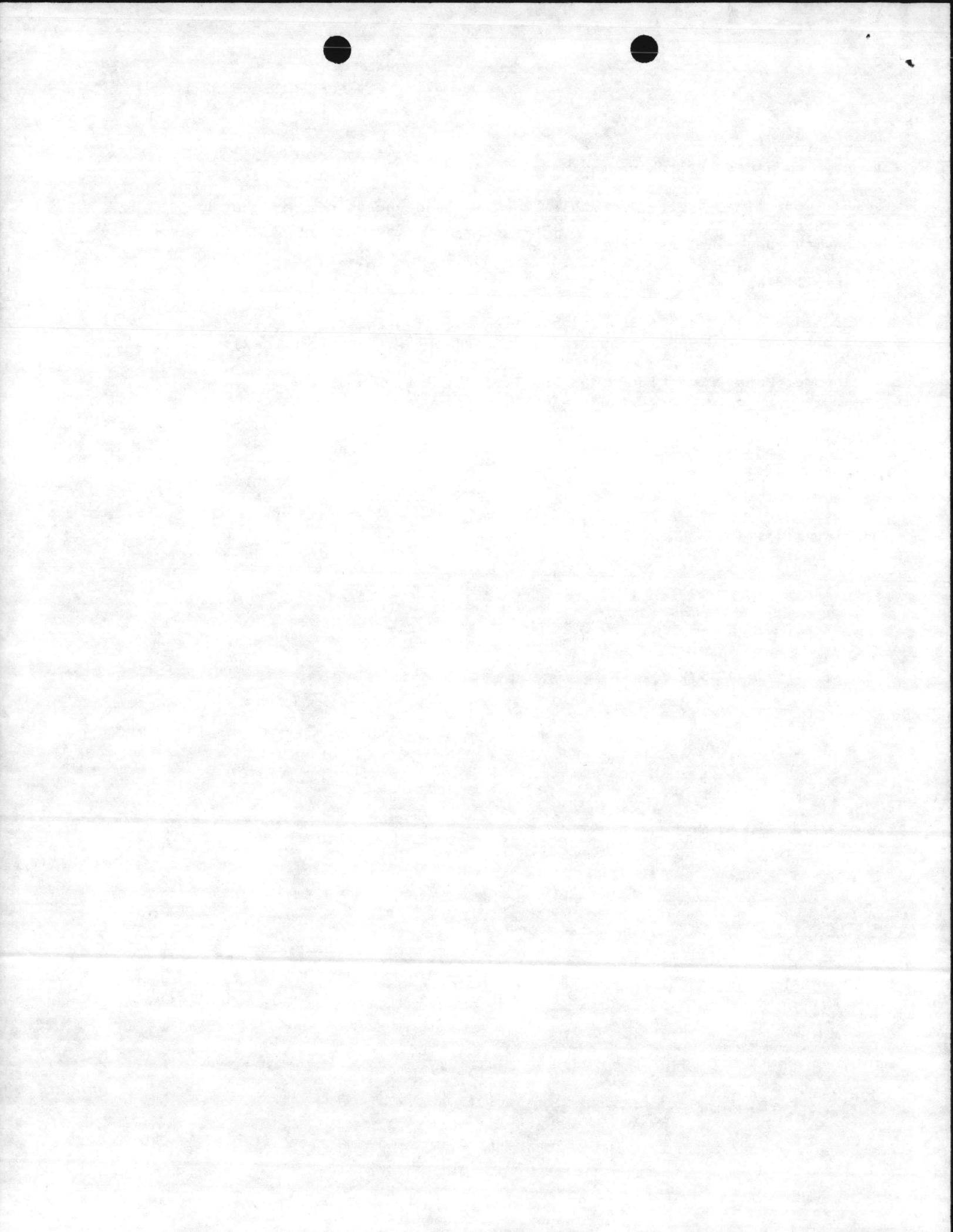
(1) Treat infectious waste generated in the Laboratory in accordance with enclosure (2).

(2) Maintain adequate records on treatment of infectious waste, to include:

- (a) Method used, i.e., sterilization/incineration
- (b) Type of waste treated
- (c) Quantity
- (d) Disposition following treatment
- (e) Quality Assurance procedure employed.


J. D. MARRIOTT

tribution:
t "A"





NHCLNCINST 6280.1A
30 Jan 85

GUIDELINES FOR COLLECTION AND TRANSPORT OF INFECTIOUS WASTE

Devices that generate infectious waste as defined in paragraph 3 follow procedures listed below.

Place infectious waste in designated infectious waste receptacle, lined plastic bag.

When full or at the end of each day seal the plastic bag with tape.

Place the sealed infectious waste bag in a red plastic biohazard bag.

Seal the red plastic biohazard bag with tape.

Place the sealed bag in the soiled utility room for pick-up by house-
g.

Devices that generate sharps and used disposable syringes:

Follow guidelines outlined in reference (c).

Turn safety deposit boxes in to CSS for treatment and disposal.

Transport Guidelines for Infectious Waste.

Housekeeping pick up infectious waste from all areas within the hospital
at daily.

Place infectious waste bags in a covered infectious waste collection
center. The container must be clearly marked with red warning stripes and
labeled "INFECTIOUS WASTE."

Transport infectious waste to the incinerator for burning.

Personnel may wear disposable rubber gloves when waste bags are torn or

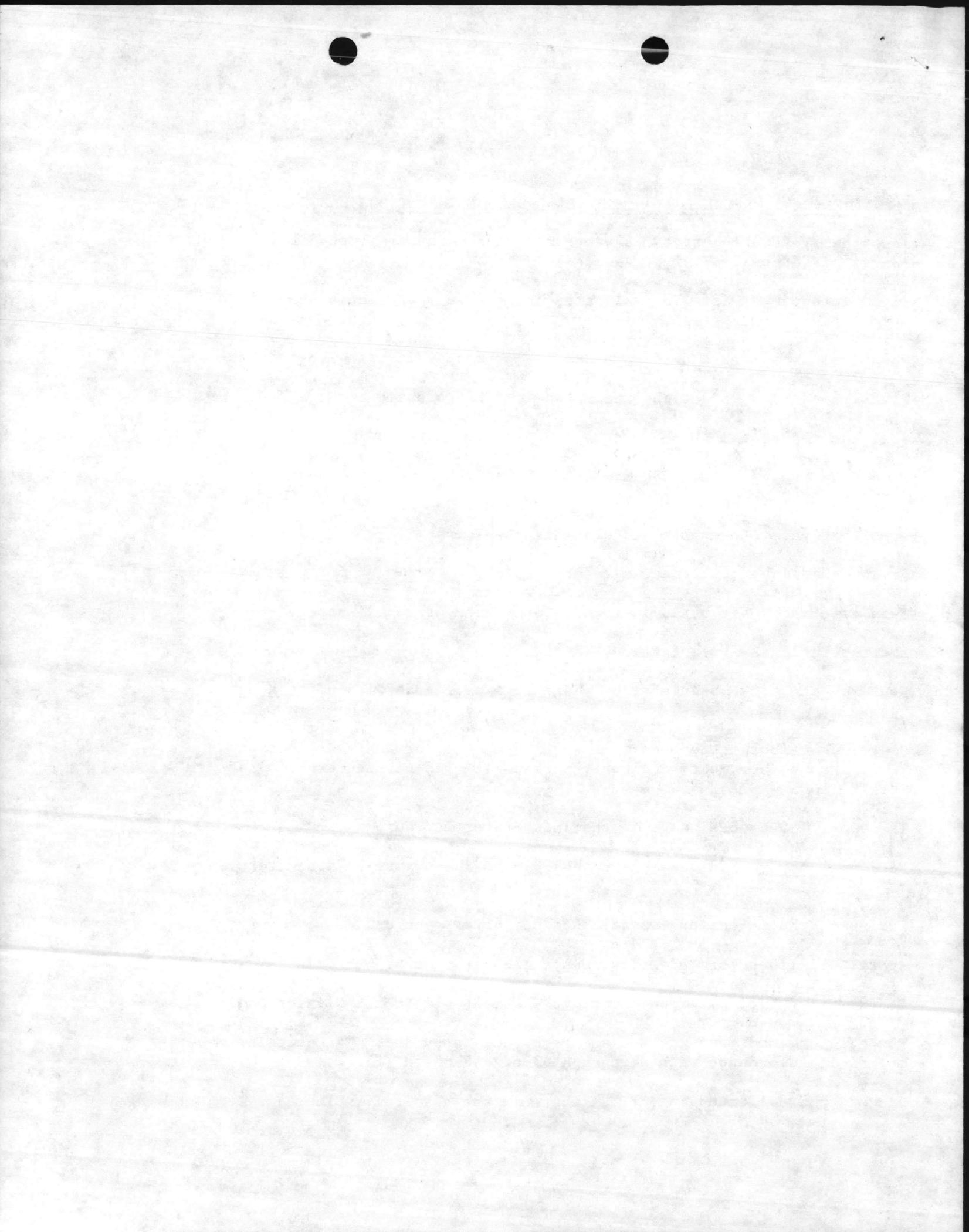
Disinfect the infectious waste container after each use.

Transport Guidelines for Infectious Waste Generated at Branch Clinics.

Guard mail driver pick up infectious waste at all Branch Clinics daily.

Place in covered infectious waste receptacle provided. The container
be marked in accordance with paragraph B3 of enclosure (2).

Discard the collected infectious waste in the hospital incinerator.





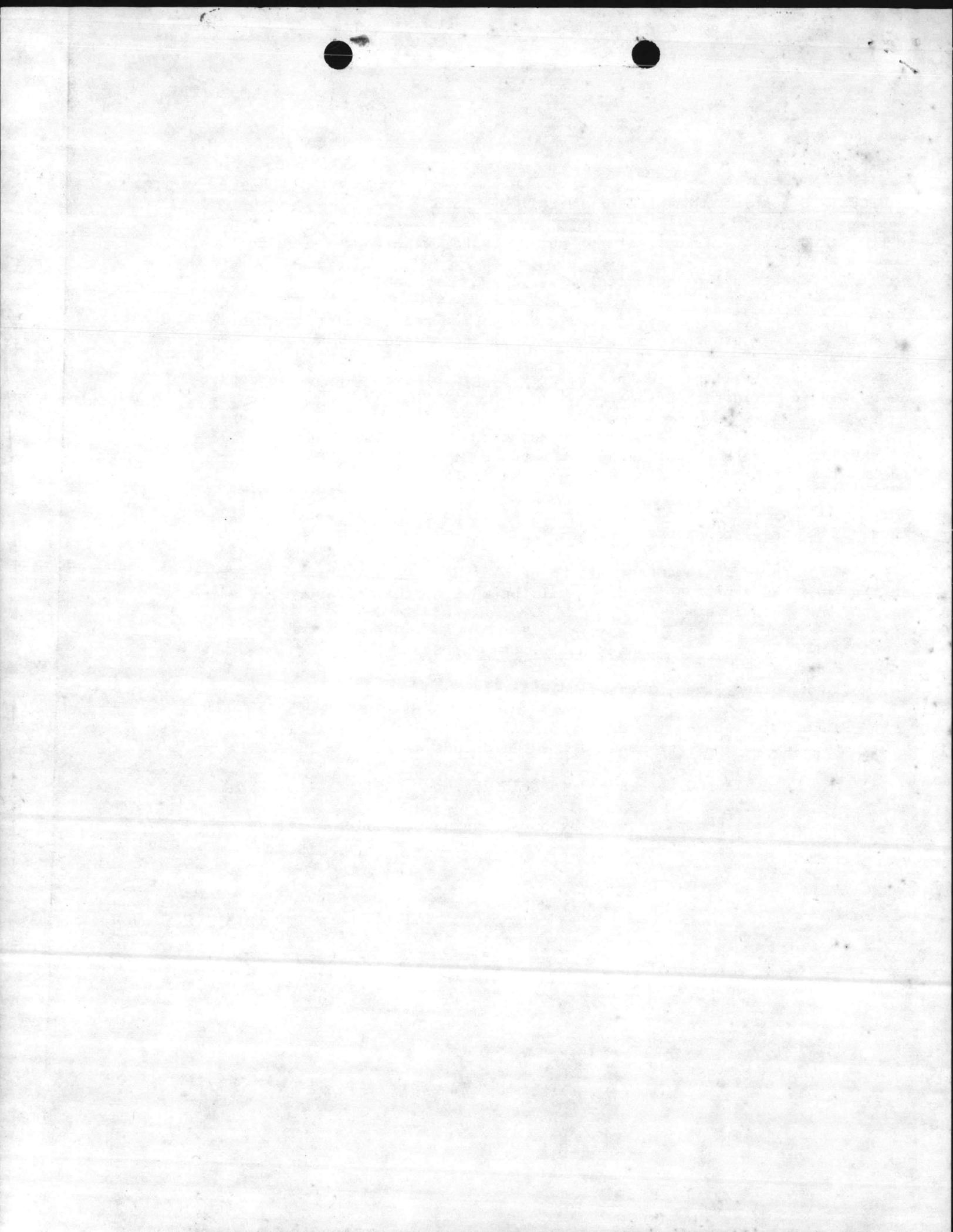
NHCLNCINST 6280.1A
30 Jan 85

GUIDELINES FOR THE TREATMENT OF INFECTIOUS WASTE

1. Select appropriate treatment method based on instruction guidelines.
2. Incinerate all pathological wastes, and disposable items.
3. All metal, large plastics and other designated articles in this instruction will be autoclaved in space next to incinerator.
 - a. Items will be brought properly bagged by each respective department or CSS to incineration room.
 - b. Sterilization is completed using the set minimum exposure time to all *Basillus Sterothermophilus* spores exposed to wet heat. The operator will autoclave at 121 degrees C for 20 minutes at 15 lbs. PSI.
 - c. Monitoring of quality control of disposal of lab wastes will be maintained in the laboratory.
4. All pathological wastes will be double bagged. As an extra precaution rubber gloves and a protective apron will be worn by the operator of the incinerator and autoclave.

GUIDELINES FOR HANDLING CONTAMINATED NON-DISPOSABLE LINEN

1. Place soiled linen in water-soluble bag.
2. Place this water-soluble bag in a laundry bag/black plastic bag and close. A pillow case may be used if a small amount of linen collected.
3. This bag will then be marked in bold letters "CONTAMINATED LINEN".
4. The bag will be transported by housekeeping from dirty utility room to laundry by their personnel.



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Dental Clinic

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DEPARTMENT OF THE NAVY
NAVAL HOSPITAL
CAMP LEJEUNE, NORTH CAROLINA 28542-5008

IN REPLY REFER TO
6260.2
371
6 Feb 86

From: Commanding Officer
To: Commanding Officer, Naval Dental Center, Marine Corps Base, Camp Lejeune, NC

Subj: INDUSTRIAL HYGIENE SURVEY A CHEMICAL/BIOLOGICAL WASTE SPILLSITE AT THE BLDG #460 DENTAL CLINIC

Ref: (a) Req fr DTI Northerner, Dental Repair, 4 Feb 86

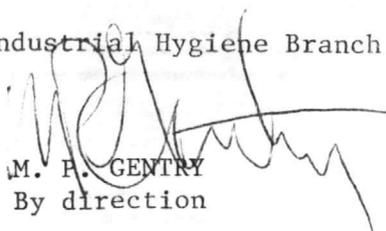
1. In response to reference (a), the subject survey was conducted by Mr. J. McCloskey, Supervisory Environmental Health Technician. Reportedly, a holding tank of contaminated waste fluid has been malfunctioning and overflowing in recent weeks.

2. Findings. The holding tank and power units of the Clinic's Oral Suction System are housed in a shed at the rear of Bldg #460. The tank collects excess fluids, saliva, pus, blood, etc., from the oral cavities of patients. Normally, the tank will fill to a certain point and, then, release the contents automatically into Base Sewage lines. The tank seemed to be operating properly at the time of survey but recent overflows were evidenced by the odor, warping of the shed door and condition of the adjacent ground.

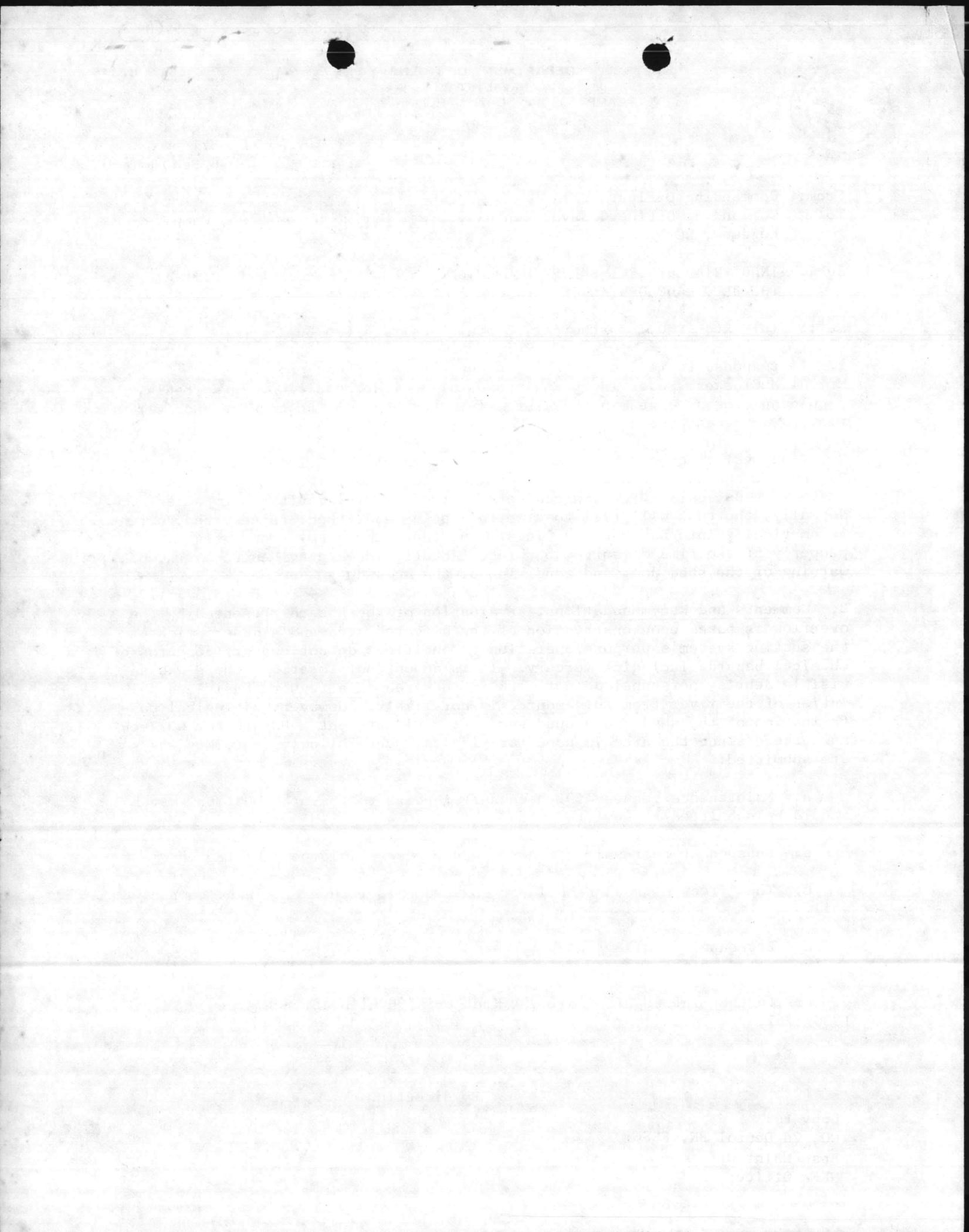
3. Comments and Recommendations. Evaluation of the hazard presented by the overflow is based upon observation of the affected area and a description of the suction system's purpose/operation. Conditions do not support concerns of chemical hazards including mercury. It is an outdoor location, there was no visible debris, personnel do not work in the area on a regular basis and pollution of the river from this source is not likely. However, biological contamination of the shed and ground surfaces could present a hazard for workmen and others since the area is used for picnics. The following recommendations are submitted:

- a. Maintenance request for necessary repairs to the oral suction system should be submitted/resubmitted.
- b. Subsequent to repair the deck in the shed should be disinfected.
- c. The affected ground should be covered by 2 inches of clean, compacted soil.
- d. Personnel should wash their hands promptly and thoroughly after working on (suspected) contaminated surfaces.

4. For further information call the Industrial Hygiene Branch at extension 1930/2767.


M. F. GENTRY
By direction

Copy to:
CO, 2d Dental BN, FSSG
Base Maint Off
NREA Office



P.O. SAVAGE

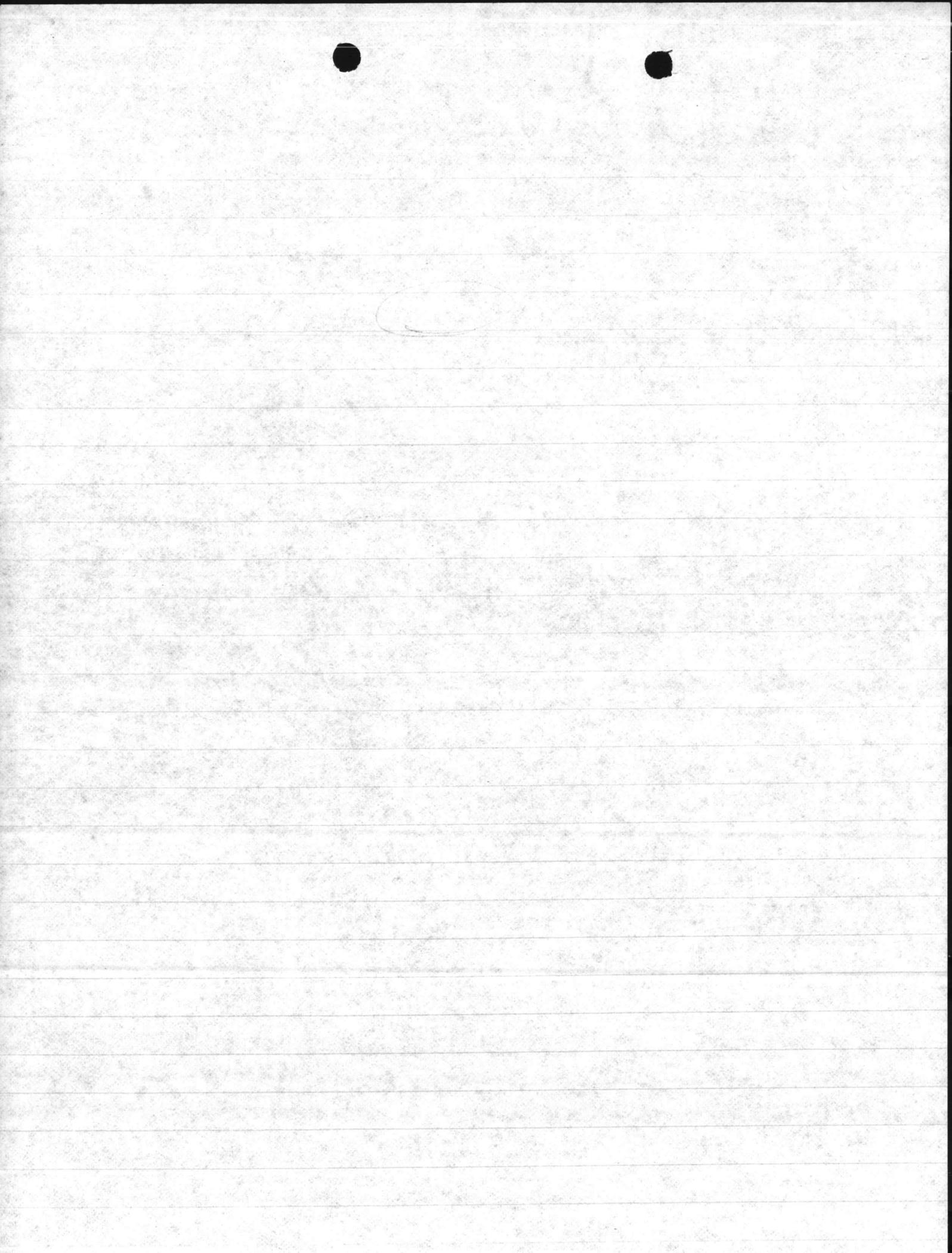
5357

TO: Betz/

either You or Tom Need to
Call P.O. SAVAGE and set up an
appointment to evaluate the significance
of mercury waste Dental is discharging
to the sanitary sewer. She (P.O. SAVAGE)
called me about this. May not be a problem.

see me FIRST

D Sharse



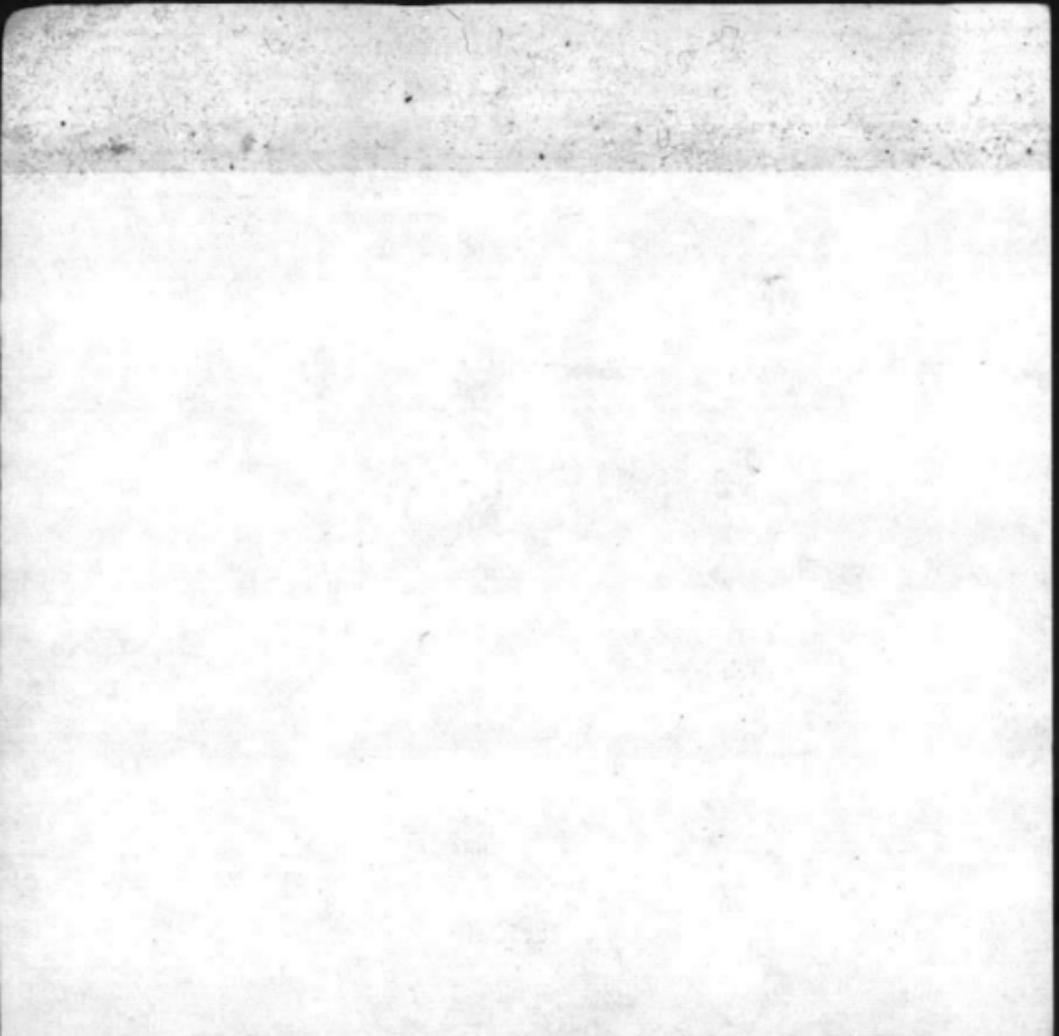
DT 3 Savage

DT 1 Northerner

Dental Repair

Request info on HW inspections

Town



Retain Lab

Info:

Relative to
P.O. - SAUage
request (5357)

Sharp

3/15/86 100.3
1 JUL 1983

attached
forwarded.

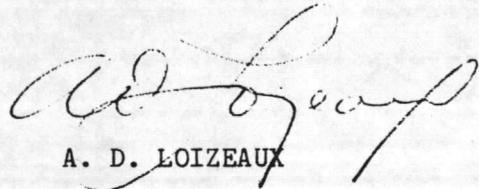
1. Purpose
establish
Clinic (N

565-2935

conditions in all
Naval Dental

2. Cancellation. NRDCNORVAINST 5100.1B, 5100.2C, 5100.3A, 5100.4A, 6260.1A, 6260.2, 6260.13A, 6600.1, 6710.1, 6810.4A and 12810.1A are hereby cancelled.

3. Background. The Navy has historically required aggressive safety programs to eliminate or abate hazards conditions. Naval personnel, military and civilian, are faced with occupational and off-duty hazardous circumstances throughout their careers. Safety programs have worked through regulatory processes to presently encompass a large body of laws, rules, standards, and record keeping. These regulations have significance of humanitarian, moral, ethical, medical, legal, and economical nature. The NDC Norfolk Occupational Safety and Health, and Industrial Hygiene Manual is an extraction of the regulations that apply to NDC functions. The NDC manual should also evolve as it is used and reviewed by NDC personnel; suggestions for revision are solicited.


A. D. LOIZEAUX

DEPARTMENT OF THE NAVY
NAVY OFFICE



Retain LAB



DEPARTMENT OF THE NAVY

NAVAL REGIONAL DENTAL CENTER

NORFOLK, VIRGINIA 23511

9/15/86 100.3
#1 JUL 1983

Danny,

Per your request the attached
NAVDENCLINORVAINST is forwarded.

NAVDENCLIN
Subj: Oc
Ref: (a
(b

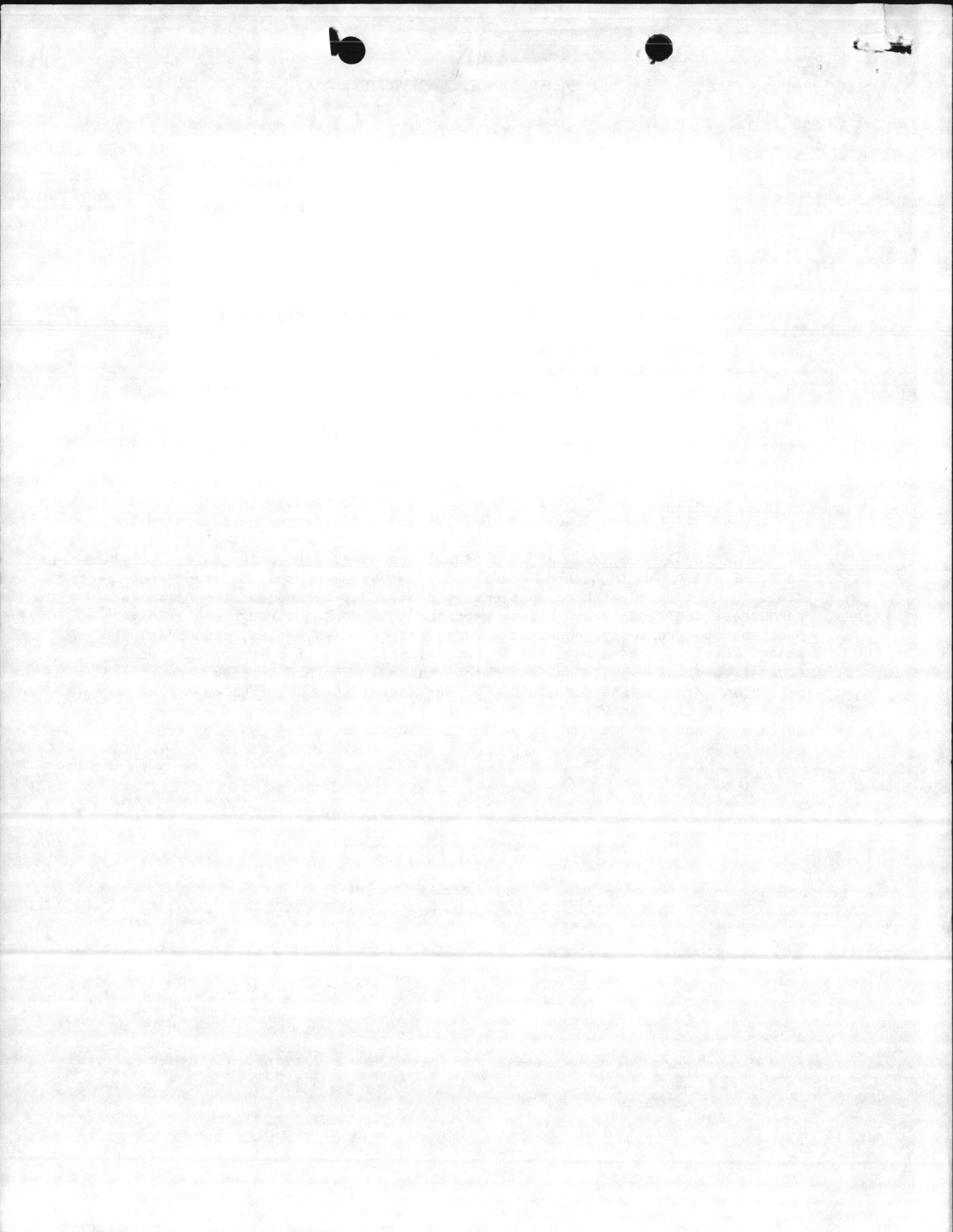
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565-2935
Appendix 1A to Chapter 1
conditions in all
Naval Dental

1. Purpose
establish
Clinic (N

2. Cancellation. NRDCNORVAINST 5100.1B, 5100.2C, 5100.3A, 5100.4A, 6260.1A, 6260.2, 6260.13A, 6600.1, 6710.1, 6810.4A and 12810.1A are hereby cancelled.

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A. D. Loizeaux
A. D. LOIZEAUX





DEPARTMENT OF THE NAVY

NAVAL REGIONAL DENTAL CENTER

NORFOLK, VIRGINIA 23511

NDCNORVAINST 5100.3

HQ01:aml

21 JUL 1983

NAVDENCLINIC NORVA INSTRUCTION 5100.3

Subj: Occupational Safety and Health, and Industrial Hygiene Manual

Ref: (a) OPNAVINST 5100.23A

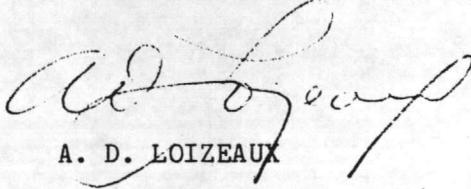
(b) BUMEDINST 5100.6A

References (c) through (m) are listed in appendix 1A to Chapter 1

1. Purpose. To provide basic guidance for maintaining safe conditions in all establishments under the cognizance of the Commanding Officer, Naval Dental Clinic (NDC), Norfolk.

2. Cancellation. NRDCNORVAINST 5100.1B, 5100.2C, 5100.3A, 5100.4A, 6260.1A, 6260.2, 6260.13A, 6600.1, 6710.1, 6810.4A and 12810.1A are hereby cancelled.

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A. D. LOIZEAUX

DEPARTMENT OF THE TREASURY

INTERNAL SECURITY - FEDERAL

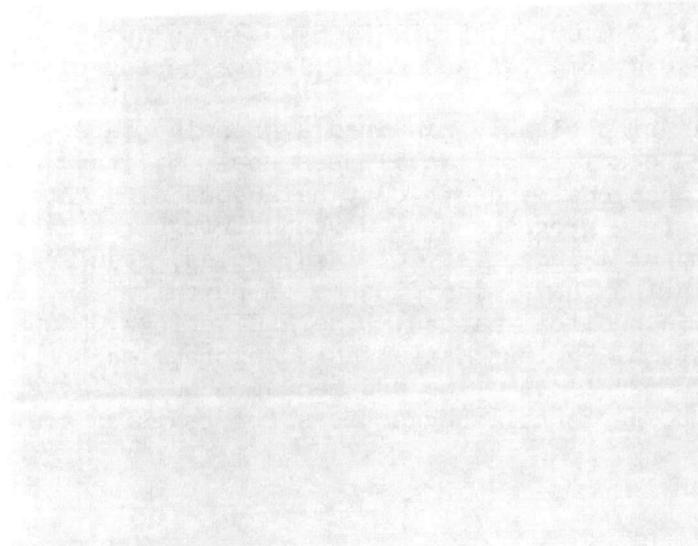
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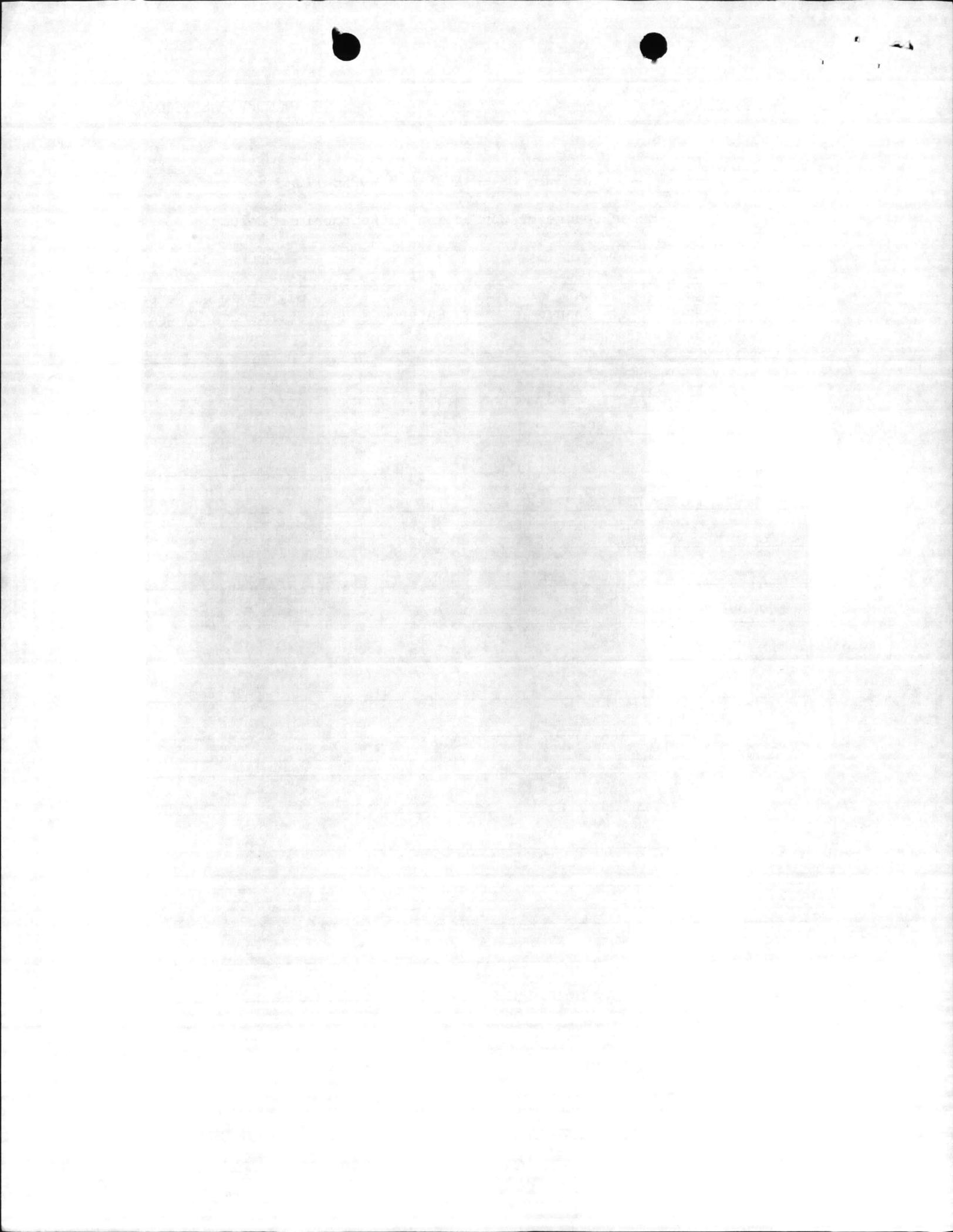
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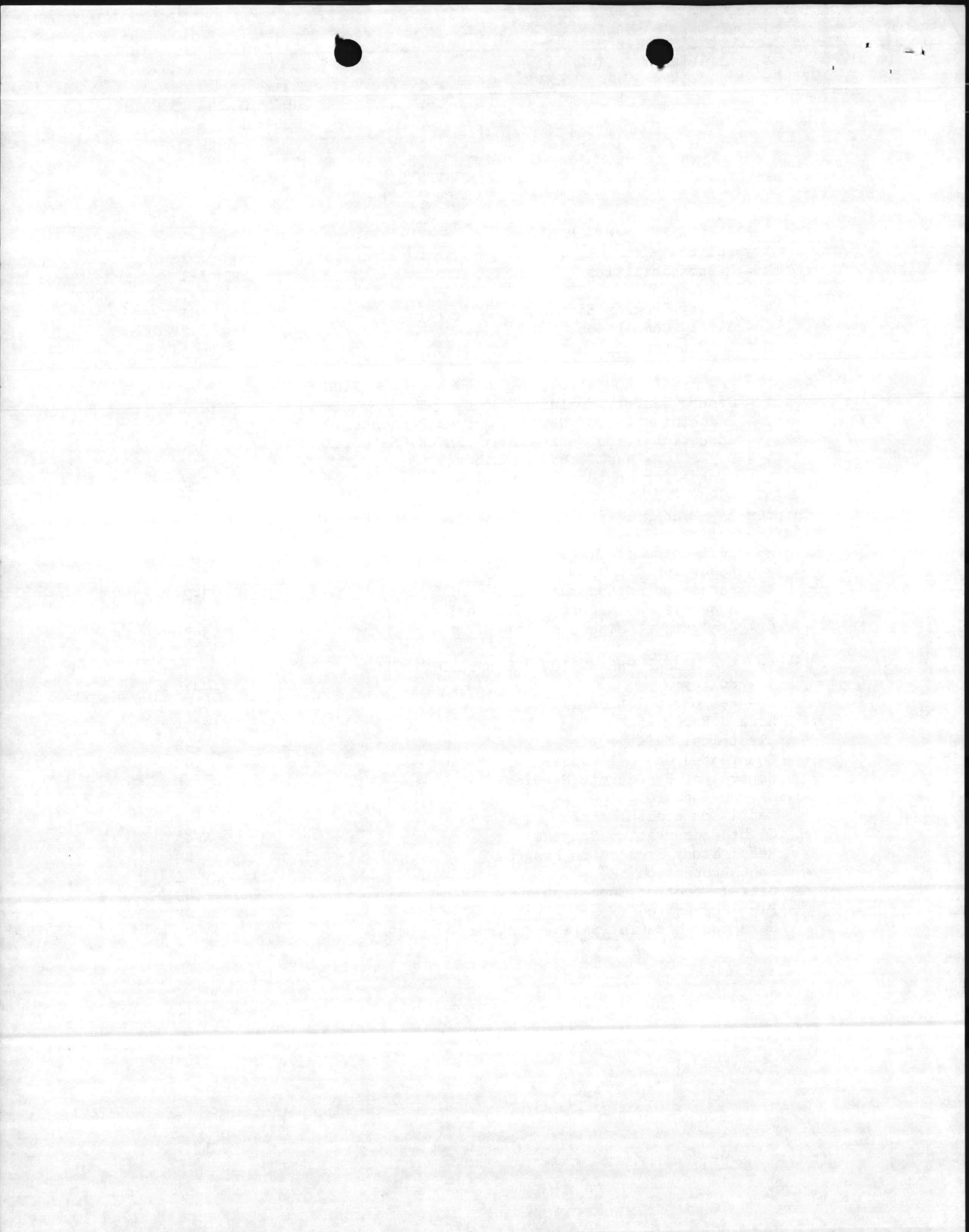
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CHAPTER 1

SAFETY MANAGEMENT

1. Policy. Management of the Naval Dental Clinic (NDC) Norfolk Safety Program is shared by all personnel of NDC as a line function. Besides the obvious need to prevent illnesses and traumatic injuries on-the-job, safety management extends to the wide - ranging actions taken to minimize risks of all types. Safety emphasis shall be placed in the following categories: patients, visitors, staff, and property.

2. Responsibilities.

a. Overall responsibility for the safety and health of personnel, in implementation of the above safety policy, and the promulgation and enforcement of safety regulations is vested in the Commanding Officer, Naval Dental Clinic, Norfolk, by U. S. Navy Regulations.

b. Branch Clinic Heads and Department heads shall enforce NDC and other applicable safety regulations within activities under their control. Supervisory personnel shall see that safety precautions are observed in their work areas. Each military member and civilian employee shall observe all safety precautions applicable to work or duty.

c. The staff functions in connection with the Safety Program are delegated to the Safety Manager who will report to the Commanding Officer on the effectiveness of the Safety Program.

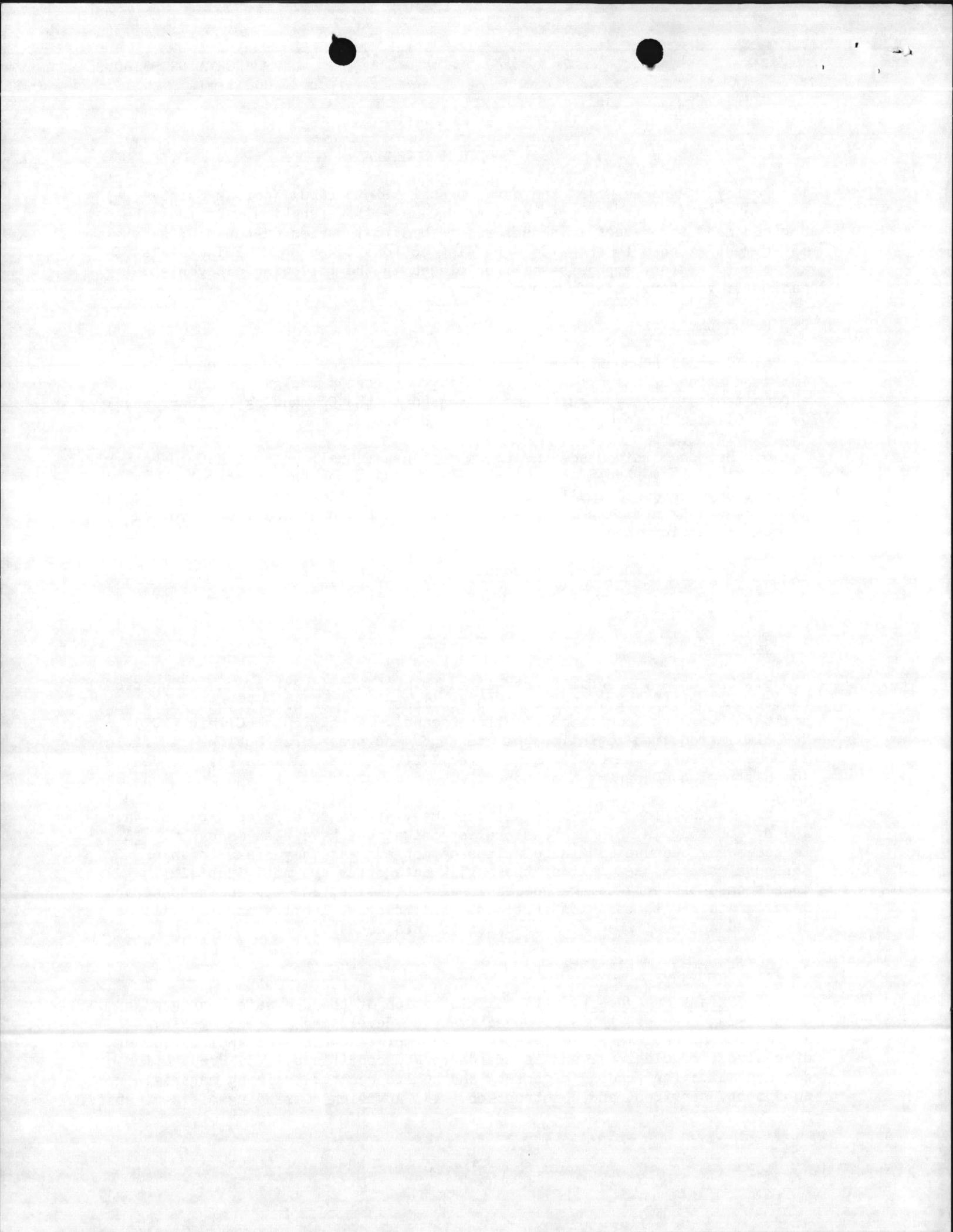
3. Standards.

a. The Safety Program is developed to meet the intent of the Occupational Safety and Health Act (OSHA) of 1970, to assure so far as possible, safe and healthful working conditions of all personnel. Naval Dental Clinic (NDC), Norfolk is required to follow the standards and procedures outlined in Title 29 Code of Federal Regulations, Chapter XVII, Occupational Safety and Health Administration, Department of Labor.

b. In addition to OSHA Regulations many standards developed by the Navy and by consensus within professional organizations have been mandated. This is necessary because OSHA Regulations do not address many risks to which NDC personnel are exposed. Among these risk categories are motor vehicle operations, property damage recreational activities, and exposures to hazards peculiar to health care institutions. Accordingly, local standards will be developed and published as appendixes to this manual.

4. Safety Program Elements:

a. Safety Management: (1) Administration of the NDC safety program by identifying needs in terms of objectives and developing specific goals. Evaluation of program effectiveness. (2) Implementation and application of directives, regulations, and standards to NDC conditions. (3) Preparation of documentation for funding of safety and health related training materials, equipment, services, and construction. (4) Advising commanding officer, staff,



committees, and supervisors on safety matters. (5) Coordination with occupational health, sanitation, security, and fire protection staffs on problems having safety implications.

b. Accident Prevention and Hazard Control: (1) Inspections of areas, spaces, materials, and equipment to identify hazardous conditions, processes, and procedures. (2) Reviewing proposed construction and alterations, equipment and material procurements, and operational processes to eliminate risks and minimize hazards. (3) Recommending measures to assure safety in all aspects of transportation. (4) Monitoring mandatory safety inspections (pressure vessels, elevators, x-ray machines, piped gas systems, and fire protection equipment) to assure their proper and timely completion. (5) Assuring the effective use of safety devices, shields, guards, and personal protective apparel and equipment. (6) Industrial hygiene monitoring to measure exposures to potentially harmful vapors, dust, radiation, noise, and chemicals.

c. Safety Education, Training and Promotion: (1) Use of lectures, instructions, briefings, publications, posters and other media to inform personnel on safe practices and to instill safety consciousness. (2) Development of standing operating procedures (SOP's) to assure that personnel adhere to safe practices. (3) Integration of safety into task instructions, duty instructions, and operating checklists. (4) Motivation of personnel to practice off-the-job safety.

d. Mishap and Incident Investigation, Reports and Analyses: (1) Receiving reports of mishaps and incidents that do, or obviously could, result in personal injury or in damage to property. (2) Investigation of mishaps, injuries and occupational diseases for the purpose of learning the causes and determining what controls could be used to prevent recurrences. (3) Analyzing records of occurrences to identify trends. (4) Preparation and submission of required safety reports to the Naval Safety Center.

5. Safety Committees. By considering multiple viewpoints, safety committees help assure that the safety program meets the needs of the Region.

a. Safety Policy Committee. A policy committee is established to assist the Commanding Officer in fulfilling the safety and health area of responsibility.

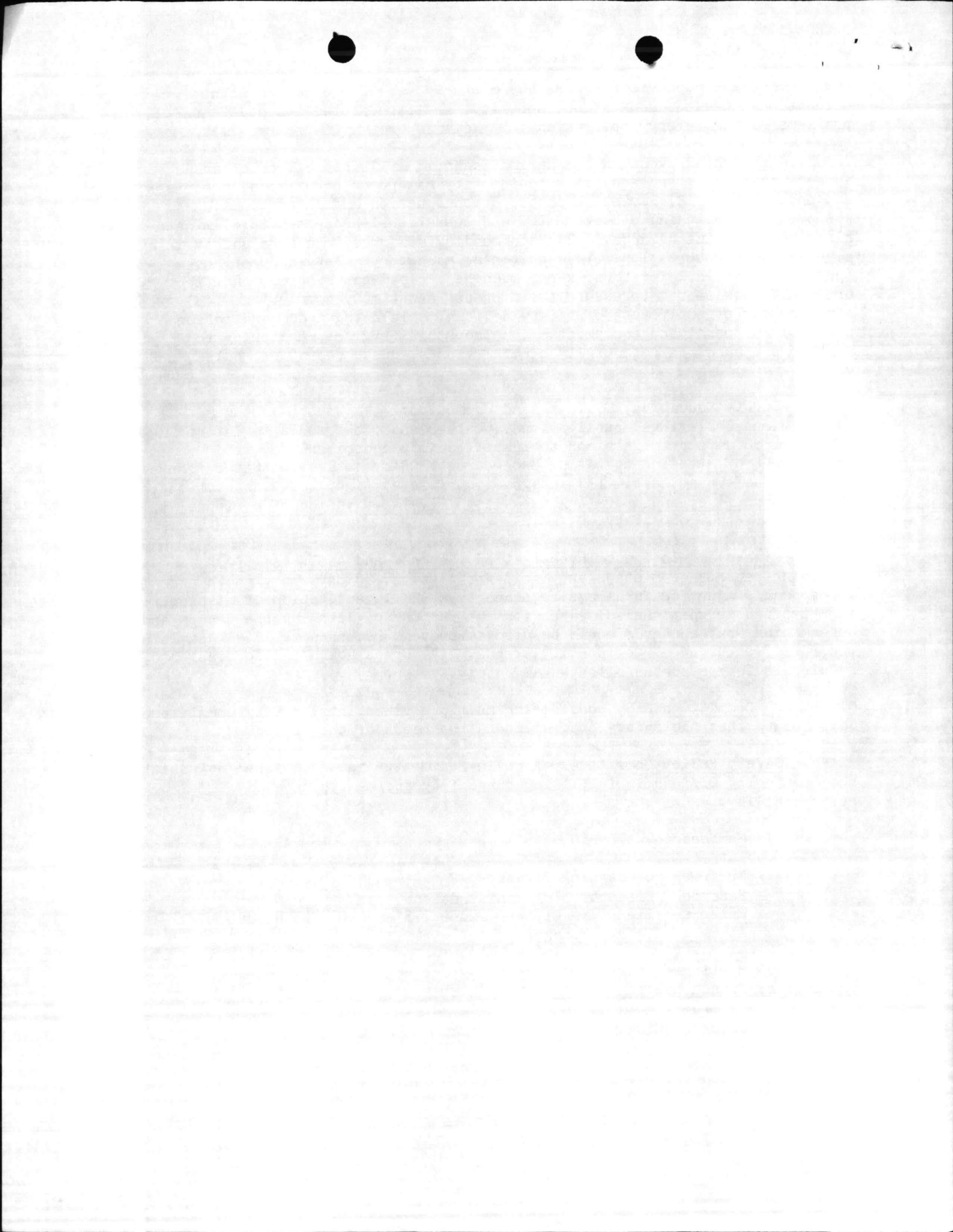
(1) Membership

Chairman- Commanding Officer
Recorder- Director of Administration
Members- Executive Officer and all Branch Clinic Heads
Advisor- Safety Manager

(2) Meetings shall be held as a segment of the regular monthly meetings of Branch Heads.

(3) Scope of Work

(a) Study safety and occupational health implications of changes in procedures and processes.



(b) Review the proceedings of and evaluate the effectiveness of the Supervisors' Committee. Give guidance to and refer specific tasks to that committee.

(c) Review priorities and requirements for funds to provide safeguards and correct unsafe and unhealthful conditions.

b. Supervisors' Safety Committee. A supervisors' safety committee is established to sustain supervisory interest and support of the safety program. The committee addresses specific problems at the Branch and department levels.

(1) Membership

Chairman- Director of Administration

Members- Command Master Chief

Branch Senior Enlisted Supervisors

Department Senior Enlisted Supervisors

Advisor/Recorder- Safety Manager

(2) Meetings shall be held as a segment of the regular monthly meetings of enlisted supervisors.

(3) Scope of Work

(a) Maintain a record of safety and occupational health deficiencies as prescribed in reference (c).

(b) Recommend priorities, scheduling, and obligation of resources for corrective actions to eliminate deficiencies.

(c) Recommend abatement measures when corrective actions cannot be taken within 30 days of recording. Or, when appropriate, request a variance of the applicable standard, through the chain of command.

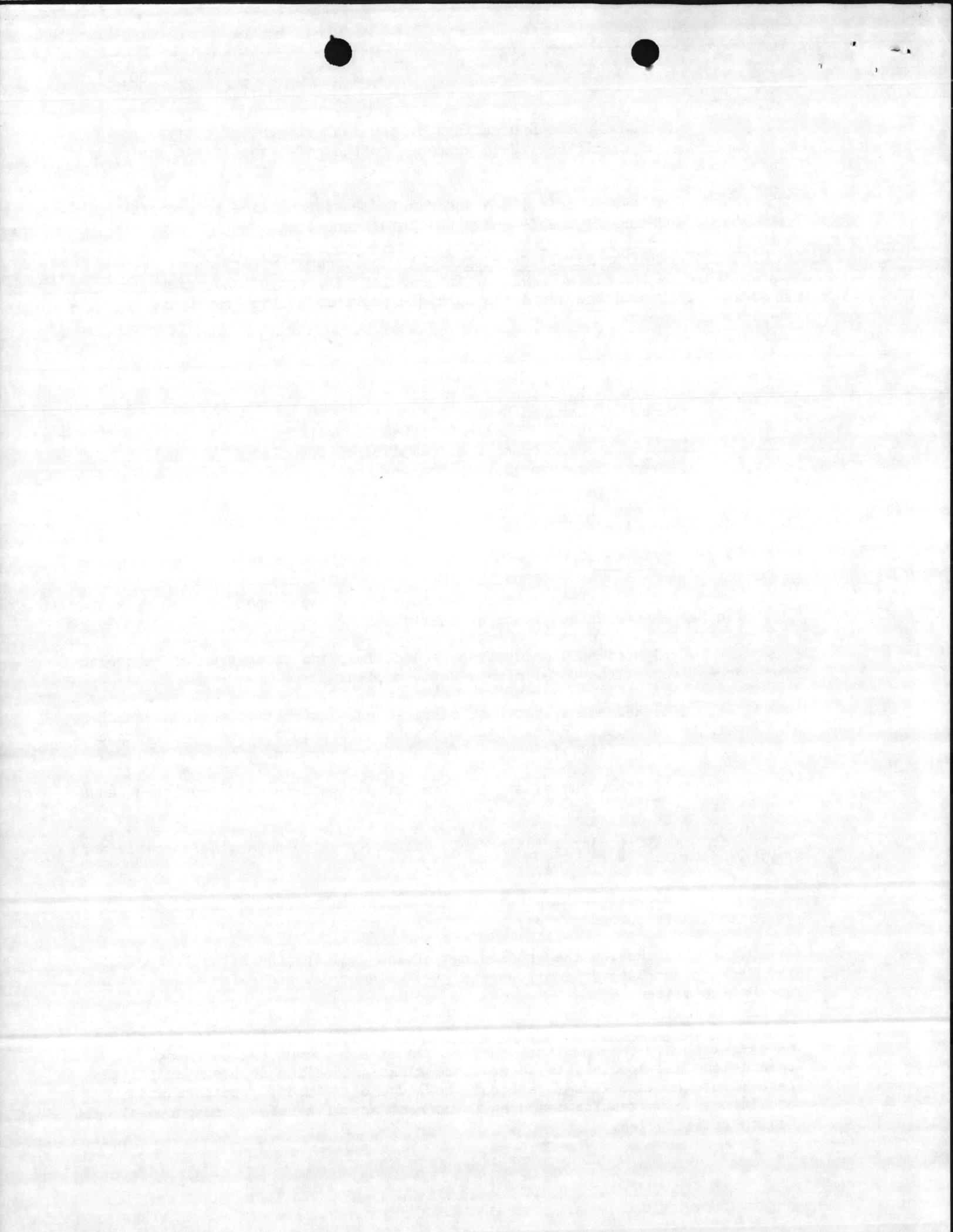
(d) Study the safety problems of patients and visitors throughout the Region.

(e) Study accident reports and analyses to determine specific and general controls that should be applied.

(f) Review all parts of this manual on a cyclical basis every two years to assure currency.

(g) Review the proceedings of and evaluate the effectiveness of the Technicians Safety Committee and give guidance to and refer specific tasks to that committee.

c. Technicians' Safety Committee. A Technicians' Safety Committee will be established. The Committee facilitates direct communication among technicians and specialists to evaluate risks and define problems at the task level; integrates maximum practical knowledge of methods, practices and conditions in suggesting measures to correct specific safety and occupational health deficiencies.



(1) Membership

Chairman- Shall be selected by Director of Administration
Members- Three or more journeyman level personnel, rated or
non-rated or civilian
Advisors- Chief of Repair Division
Safety Manager

(2) Meetings shall be held monthly on call of the Chairman.

(3) Scope of Work

(a) Do special tasks assigned by the commanding officer or referred by the policy committee.

(b) Review the causes of individual injuries and occupational illnesses.

(c) Review incident, mishap and injury reports.

(d) Review safety and occupational health procedures.

(e) Evaluate risks and review requirements for safeguards, safety devices, environmental controls, and personal protective equipment.

(f) Review specific safety and occupational health deficiencies reported to the committee by any person.

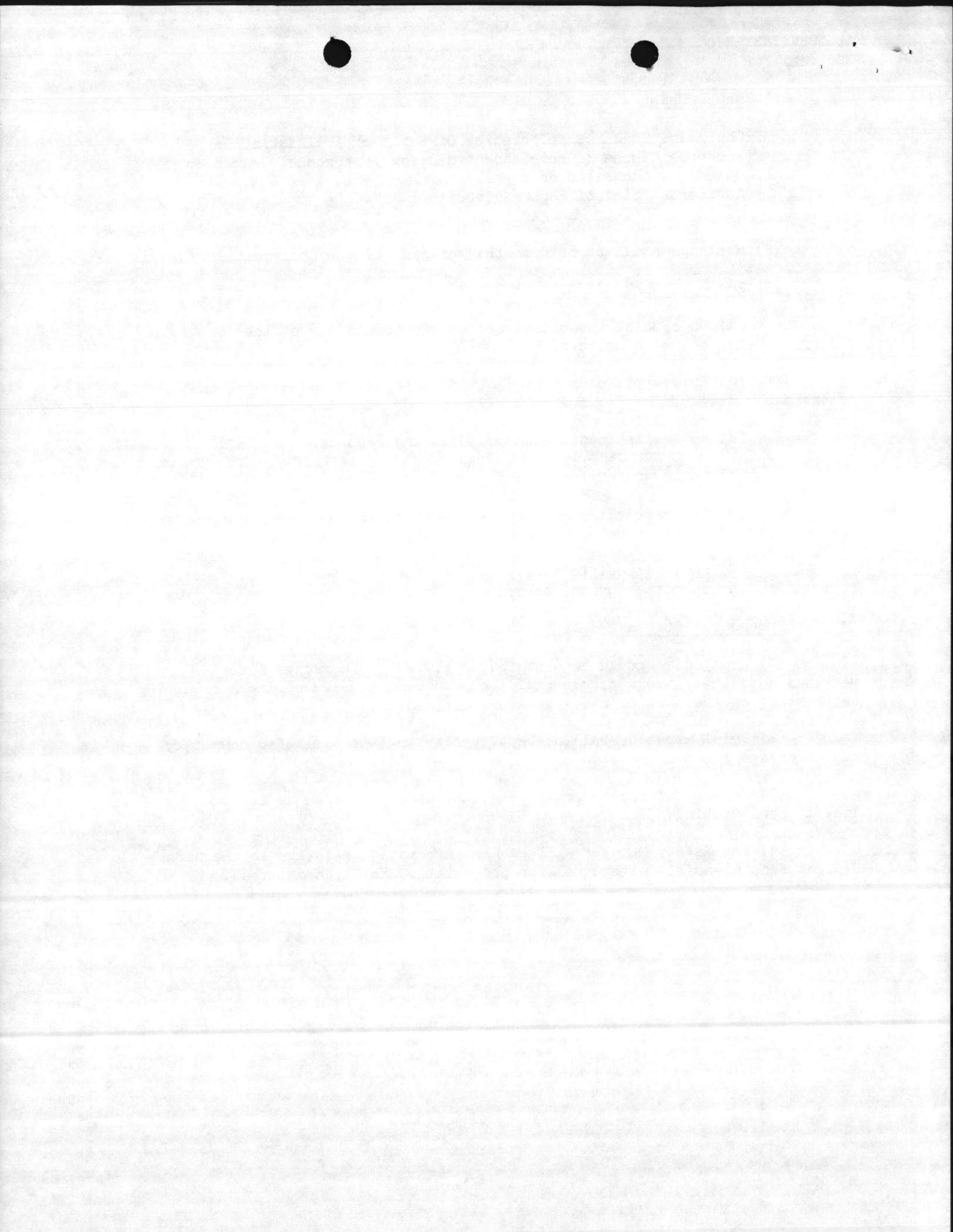
d. Procedural Guides

(1) An agenda should be distributed at least 5 workdays before meetings when there are controversial items to be discussed or items requiring prior study on the part of members before discussion.

(2) Brief minutes shall be kept, reflecting the basis for committee action on agenda items.

(3) Members of the supervisors' committee shall sign an attendance list at each meeting.

(4) The Safety Manager will gather information relative to the Safety Program from a variety of sources for presentation to the committees.



APPENDIX A TO CHAPTER 1

SAFETY LIBRARY

1. Directives. Direction for the NDC Norfolk Safety Program is contained in references (a) and (b) listed on the first page of this instruction and in references (c) through (m) below:

(c) BUMEDINST 5100.9A, Safety and Occupational Health Deficiencies; correction of.

(d) OPNAVINST 5100.16A, Department of the Navy Shore Safety Award Program.

(e) OPNAVINST 5102.1A, Mishap Investigation and Reporting.

(f) NAVSUPPINST 4440.146A, Safeguarding of Sensitive, Drug Abuse Control, and Pilferable DSA Items of Supply.

(g) BUMEDINST 6470.9B, Radiation protection survey and equipment performance test of diagnostic x-ray equipment.

(h) National Council on Radiation Protection and Measurements (NCRP) Report No. 35 Dental x-ray Protection.

(i) 29 CFR 1910, OSHA General Industry Standards.

(j) NAVMED P-5055, Radiation Health Protection Manual.

(k) BUMEDINST 6810.4G, Ophthalmic Services.

(l) 29 CFR Part 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs.

(m) NAVMATINST 11320.14, Naval Shore Activities Fire Prevention Program.

(n) OPNAVINST 11320.25A, Reporting of Fires and Related Emergencies at Navy Shore Activities and Marine Corps Facilities.

2. Technical Library. The following safety and occupational health publications are maintained at NDC Norfolk Headquarters, Code HQ01.

a. Safety and Occupational Health Series: Accident Prevention Manual for Industrial Operations: Safety Management, Engineering and Technology, Industrial Hygiene; National Safety Council.

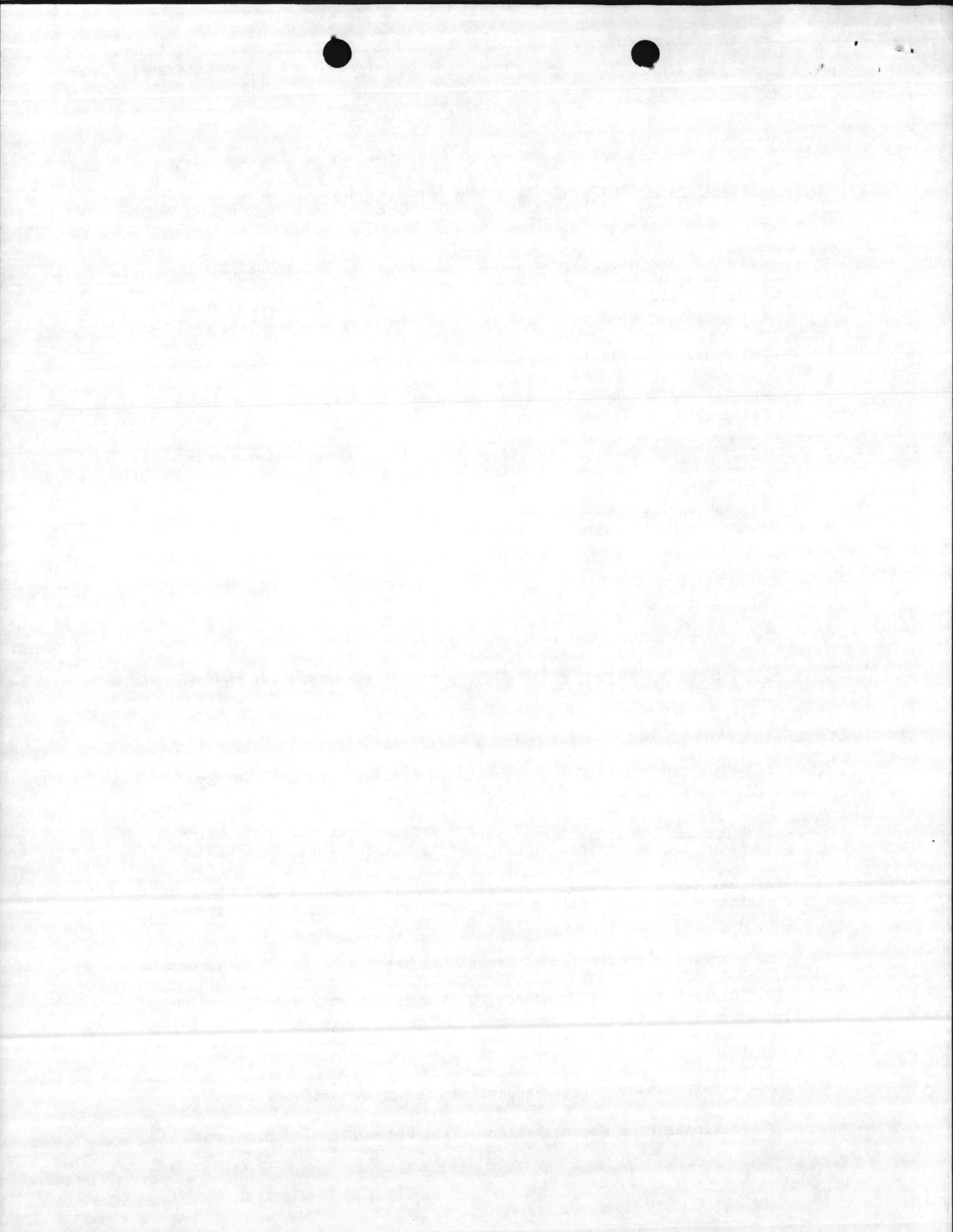
b. Dangerous Properties of Industrial Materials, Sax, Van Nostrand.

c. General Industry Standards, OSHA Publication 2206 of June 1981.

d. Safety Guide for Health Care Institutions, American Hospital Association.

e. NAVMAT P-5100 Safety Precautions for Shore Activities.

f. National Fire Codes, National Fire Protection Association.



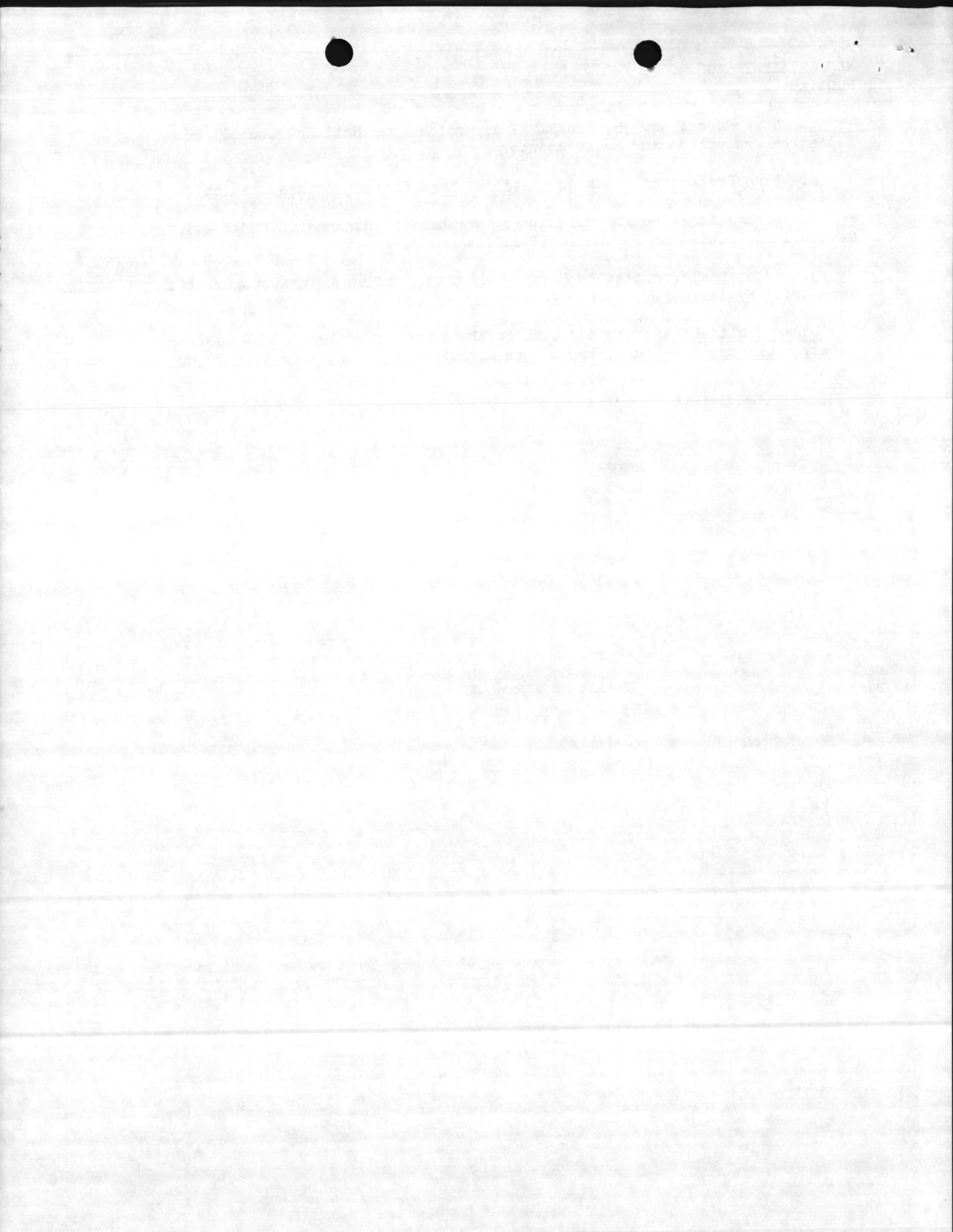
g. NCRP Report No. 35, Dental x-ray protection, National Council on Radiation Protection and Measurements.

h. Fire Protection Handbook, National Fire Protection Association.

i. Occupational Health Guidelines for Chemical Hazards (NIOSH/OSHA), National Institute for Occupational Safety and Health.

j. Industrial Ventilation Manual, American Conference of Governmental Industrial Hygienists.

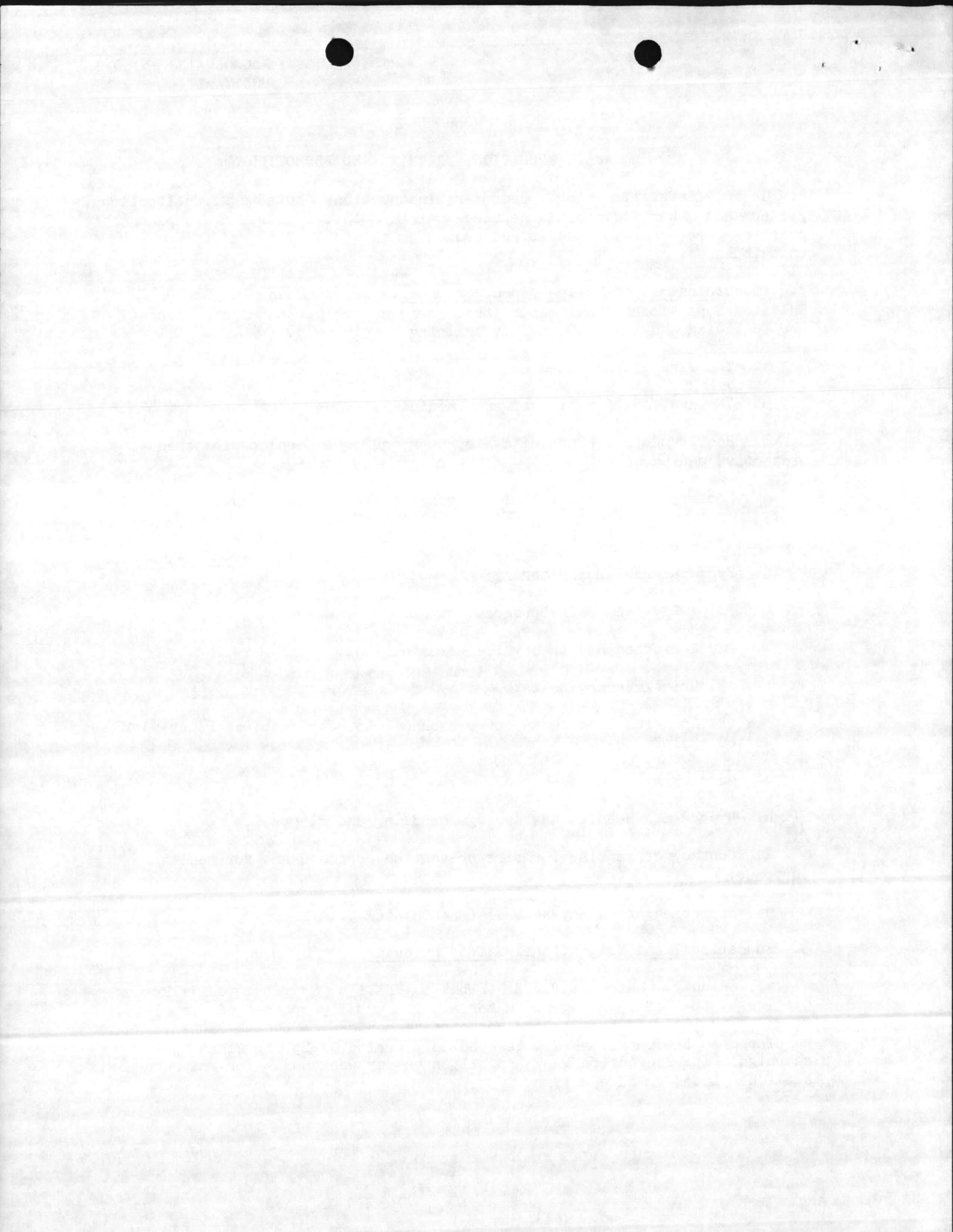
3. Other Publications. In addition to the above, a collection of pertinent safety booklets, technical papers, and magazines is maintained by Code HQ25.



CHAPTER 2

SAFETY EDUCATION, TRAINING AND PROMOTION

1. General Safety Training. Lectures, instructions, briefings, publications, posters and other media shall be used to inform individuals and groups on safe practices, methods, procedures and processes and to instill safety consciousness.
2. Indoctrination of Newly-Joined Personnel. Branch Heads and Senior Enlisted Supervisors shall ensure that newly-joined personnel are informed of the following, as a minimum safety training requirement.
 - a. The fire alarm system and the fire evacuation plan.
 - b. The availability of emergency medical service.
 - c. Requirements for protective eyewear and other applicable personal protective equipment.
 - d. Location and operation of emergency eye-wash fountains.
 - e. Requirements for reporting of their mishaps and work-related illnesses.
 - f. Personal health monitoring:
 - (1) X-Ray film badge program.
 - (2) Radiation health physical examinations.
 - (3) Urine/mercury tests.
 - (4) Lung function tests for personnel who wear respirators at work for protection against dust.
 - g. Mercury hygiene techniques.
 - h. Hypodermic needles and syringe handling and disposal.
 - i. Control of smoking for fire prevention purposes and for health purposes.
 - j. Reporting of safety hazards (see Chapter 3).
3. Educational and Motivational Safety Material.
 - a. On-duty. Material for distribution shall be provided to all Branch Clinics by the Safety Manager. Material will usually consist of pamphlets, items in the Plan-of-the-Day and appropriate posters. Special emphasis shall be placed on the Christmas/New Year holiday period, a Spring Clean-up campaign, Fire Prevention Week and all three-day weekends - for which emphasis shall be placed on safe driving.

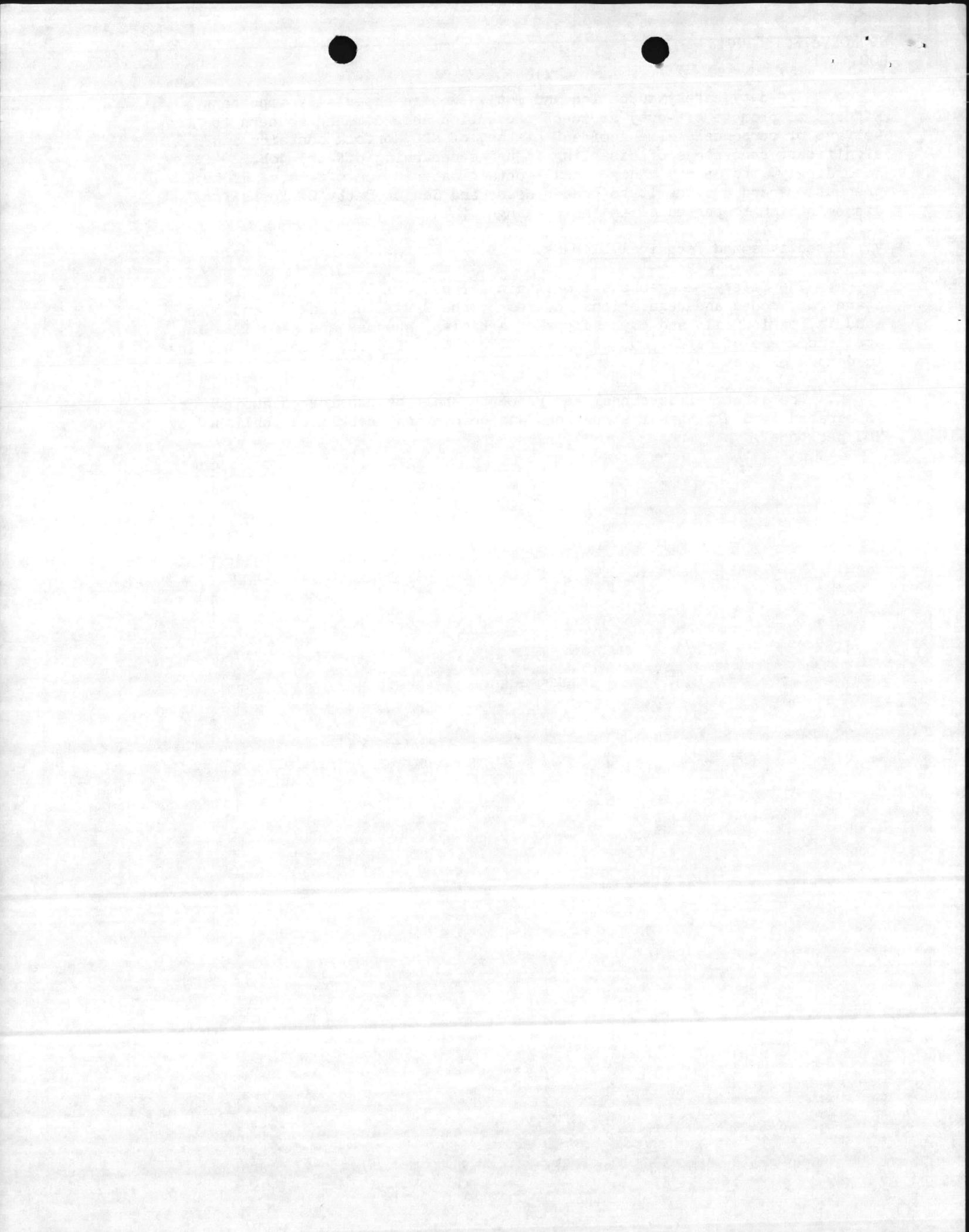


b. Off-duty safety education and motivation is especially important. Efforts to promote off-duty accident prevention show command concern for the welfare of personnel. The accident history of NDC Norfolk contains a significant percentage of disabling injuries occurring off-the-job. Accordingly, the Safety Manager shall obtain material on off-duty safety precautions and provide it to Branch Heads and Senior Petty Officers for dissemination to personnel in their charge.

4. Directives and Technical Library.

a. The Safety Manager shall maintain a technical library including standards, codes and regulations adopted by the Navy; textbooks, handbooks, manuals, periodicals and compendiums of articles, studies and pamphlets in specific areas of safety and occupational health affecting personnel working in dental clinics and laboratories.

b. The safety of personnel and property shall be considered and integrated into all task instructions and operations checklists published by NDC personnel.



CHAPTER 3

MISHAP INVESTIGATION, REPORTS AND ANALYSIS

1. Policy. Mishaps shall be investigated and reported to reveal the causes, nature and trends of mishaps and associated injuries. The information gathered shall be used for the administration of a mishap prevention program. Mishap records shall also be maintained for collateral investigations of a legal nature.
2. Definition of Mishap. Any unplanned or unexpected event causing personal injury, occupational illness, death or material loss or damage.
3. Reporting. All mishaps that result in personal injury or in property damage should be the subject of a report; the severity of the loss governs the extent of reporting. Reporting effort can range from a few short notes for a minor incident or near-miss to a formal board of high-ranking personnel investigating circumstances.

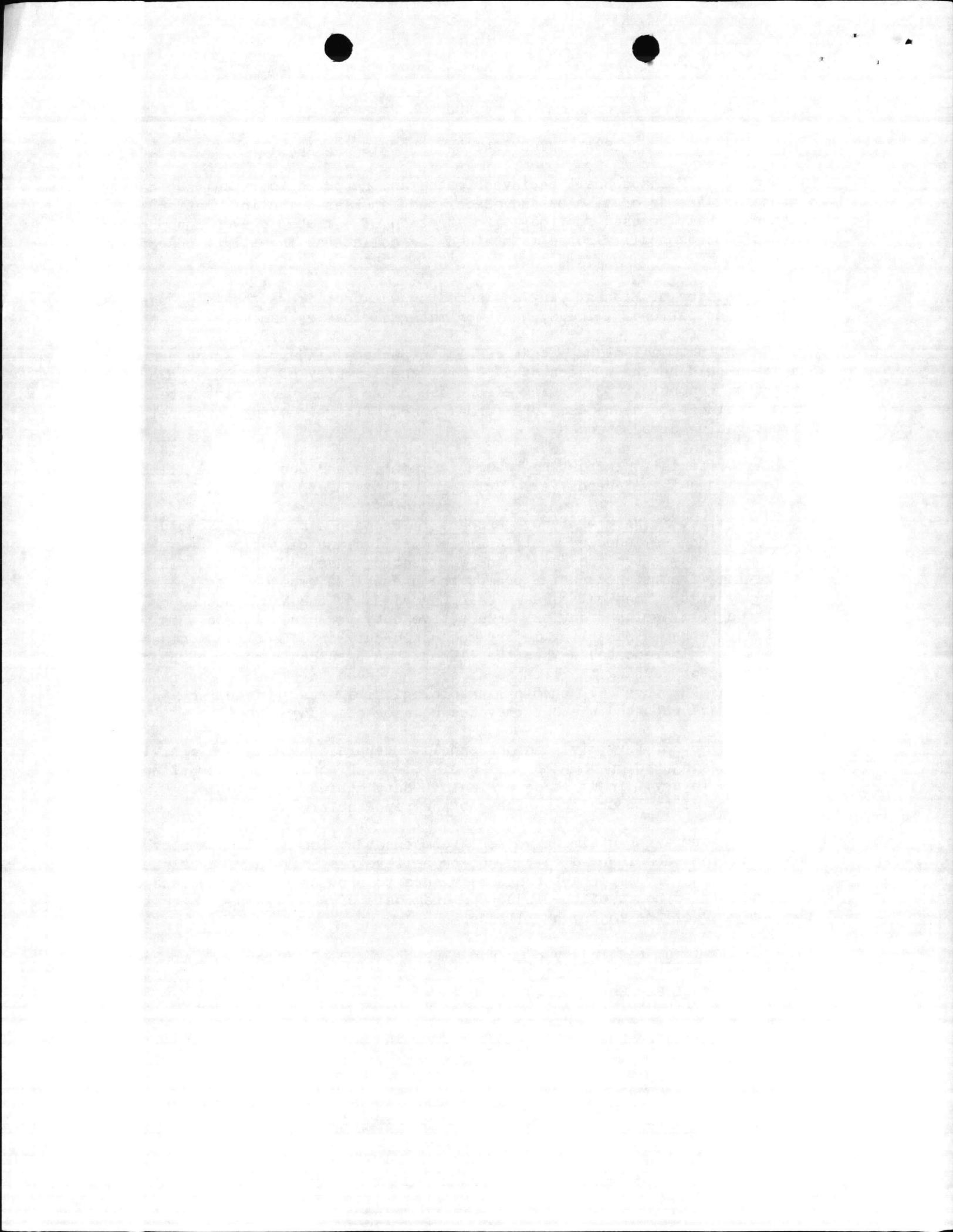
a. Criteria for reporting traumatic injuries and occupational illnesses are contained in reference (e). Brief guidelines are given below:

(1) U. S. Navy military personnel: Prepare a report in accordance with reference (e) when an individual is disabled and cannot perform usual work on any day after the day of the accident or onset of illness. The underlying circumstances which prompt the prescribed report is that the member is in pay status, medical care is being provided by the Navy, but he or she cannot perform assigned duties. For active duty personnel a report is required whether a disabling injury occurs on duty or off duty. A disabling illness is only reportable when the illness has been contracted on-the-job with the agent causing the illness directly related to the work environment, such as harmful physical, chemical or biological agents. Disabling vehicle accidents are reported whether they occur on or off duty.

(2) U. S. Navy civilian personnel. Prepare a report when a civilian employee is injured on-the-job and is disabled for work on any day after the day of the injury. Injuries occurring off-duty are not reportable. Disabling vehicle accidents occurring on-the-job are reportable.

b. Criteria for claiming worker's compensation for civilian employees. When civilians are injured on-the-job or believe they have a work-related illness it is very important for supervisors to provide the appropriate claim forms within 48 hours of the injury or diagnosis of the illness, regardless of the severity of the injury or illness.

(1) Traumatic injury requires a report on U. S. Department of Labor (DOL) Form CA-1 (Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation).



(2) Occupational disease requires a report on DOL Form CA-2 (Federal Employee's Notice of Occupational Disease and Claim for Compensation). Exception: an occupational disease caused by an exposure during one work shift qualifies as a traumatic injury for adjudication purposes.

(3) Paperwork Management. The paperwork chain for claiming compensation for civilian employees is entirely separate from the Navy's mishap reporting chain. Because of this there is a redundancy in information being passed on to the Office of Workers Compensation, DOL. Supervisors need only initiate the claim action; the Civilian Personnel Office continues the follow-up paperwork requirements should a case progress to one of compensation for a disabled employee.

c. Fires are reported in accordance with reference (n). Investigation and reporting are accomplished by the fire departments serving the branch dental clinics. Supervisors shall assist by preserving evidence, making witnesses available and by reporting all fires - including "dead" ones - to their respective fire department.

d. Property Damage. All cases of accidental material (property) damage involving a repair or replacement cost of \$250.00 or more will be investigated and reported in accordance with reference (e). Exceptions are damage caused by hostile action, nuclear weapons, nuclear propulsion plants, radiation incidents and aircraft mishaps. All of the exceptions are reportable in accordance with separate applicable instructions.

e. Occupational Safety and Health Administration (OSHA) Reporting.

(1) The Safety Manager is responsible for preparation of all OSHA reports.

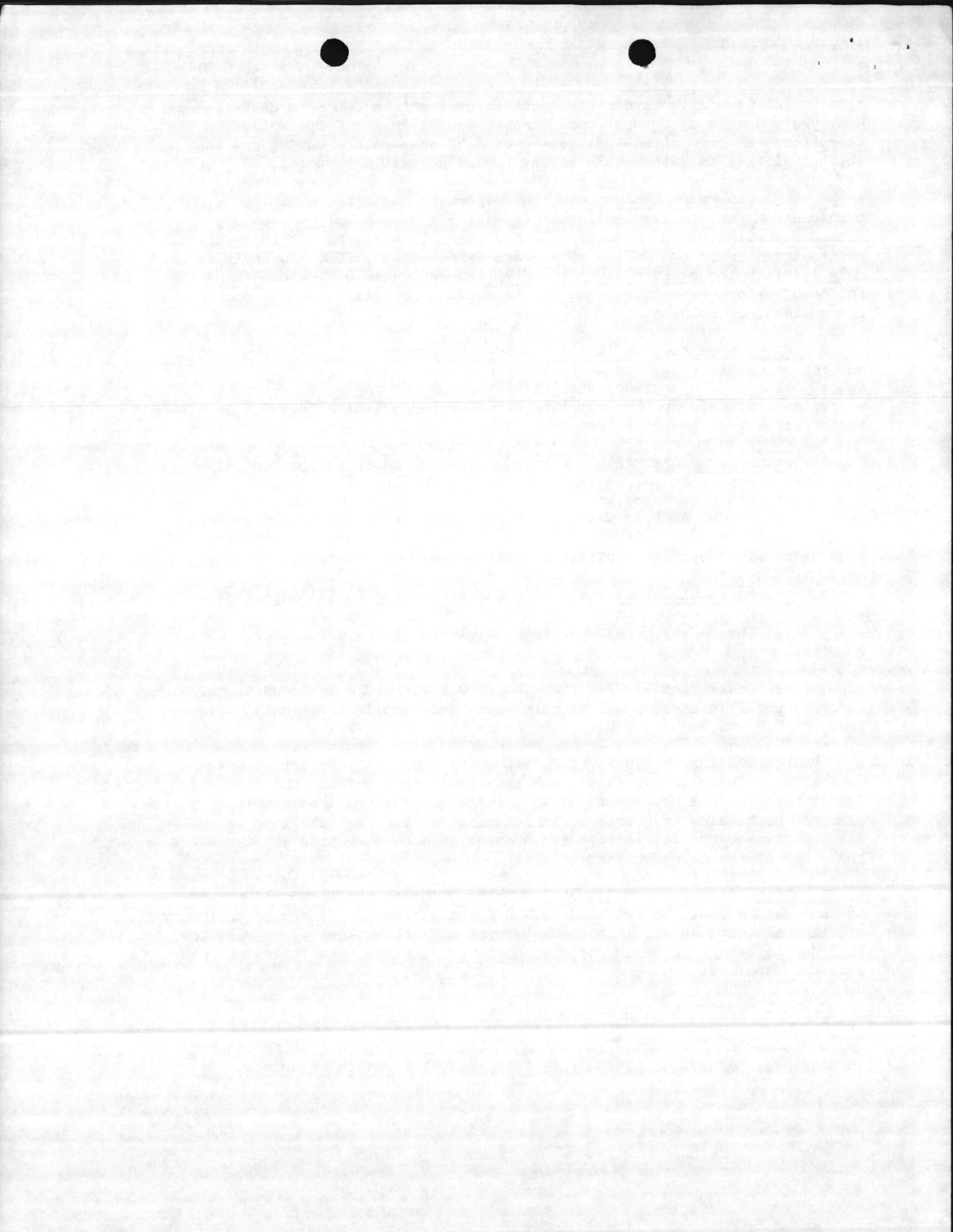
(2) OPNAV Form 5100/10 (OSHA No. 100F) (Log of Navy Occupational Injuries and Illnesses) shall be maintained and compiled from data collected from OPNAV Forms 5100/1, 5100/3, DOL Forms CA-1 and CA-2.

(3) OPNAV Form 5100/5 (OSHA No. 102F) (Quarterly Report of Navy Occupational Injuries and Illnesses) shall be compiled from OSHA 100F and feeder reports from Department Heads. These reports shall be submitted at the close of each calendar quarter. An annual summary report shall be posted on all bulletin boards for thirty days commencing not later than 45 days after the close of the calendar year.

4. Retention of Records. Reports covering injuries and illnesses of a serious nature shall be retained by NDC for a period of 5 years after injury or diagnosis of disease, in accordance with OSHA recordkeeping regulations. In order to determine which reports should be retained, the following criteria should be applied:

a. All reports of occupational illness.

b. Reports of injuries resulting in the injured person being rendered unconscious, regardless of the extent of medical treatment required.



c. Reports of injuries requiring medical treatment beyond first aid shall be retained. Procedures that are strictly diagnostic or preventive do not, in themselves, constitute medical treatment for these recordkeeping purposes. Conversely, prescribing medicine to any degree constitutes medical treatment rather than first aid. OSHA's definition of medical treatment:

"MEDICAL TREATMENT includes treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does NOT include first aid treatment (one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care) even though provided by a physician or registered professional personnel."

d. Reports of incidents that result in lost workdays or days of restricted work activity.

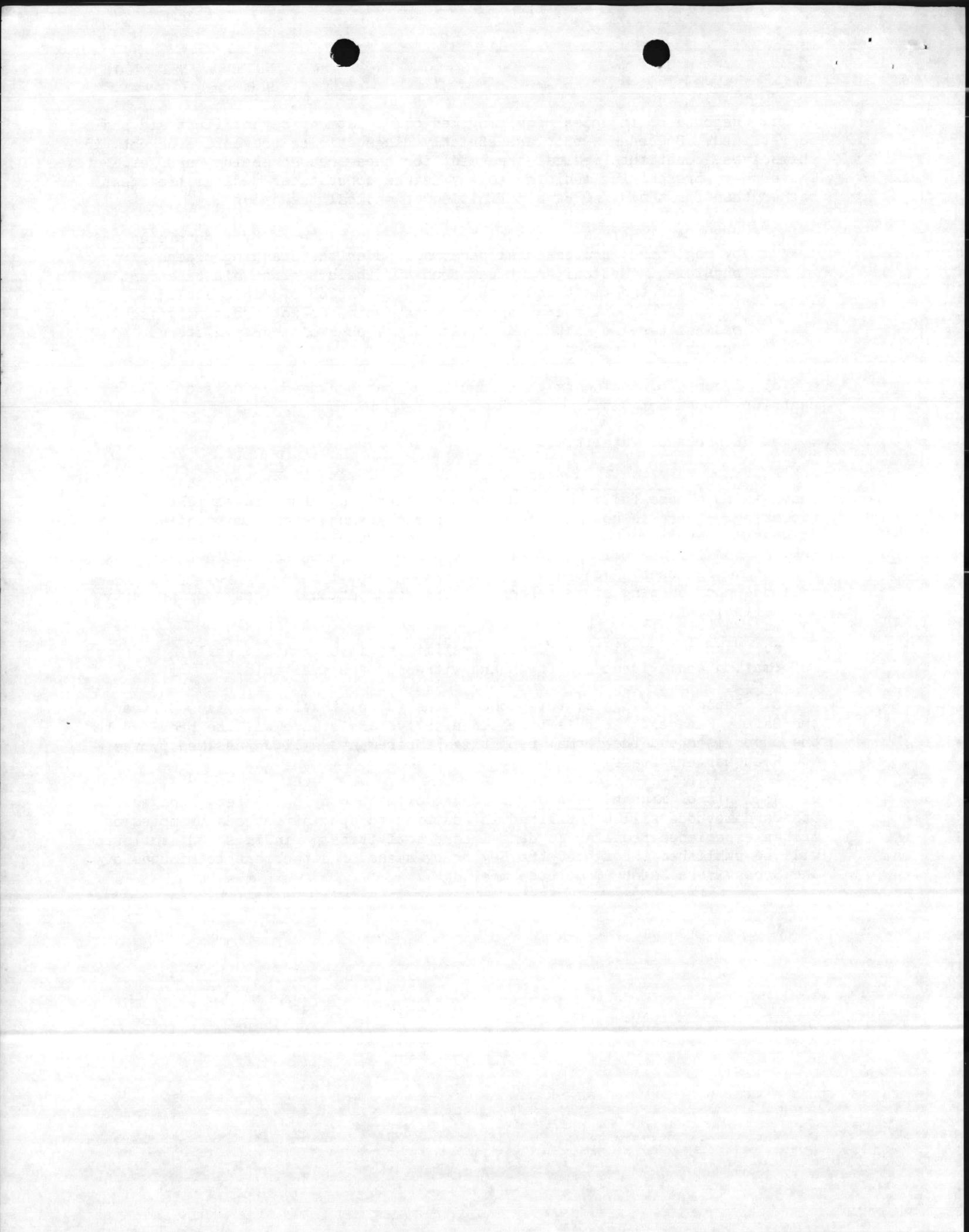
e. Reports of fatalities.

5. Supervisors' Reporting Responsibilities. It is not intended that supervisors become fully informed and proficient in mishap investigation and reporting. There is not sufficient experience exposure or time available. However, supervisors have inherent reporting responsibilities to the Naval Service and for the welfare of military and civilian personnel in their respective branches. Accordingly, supervisors shall take the following actions upon learning of a personal injury, occupational disease or property damage incident.

a. Make an immediate informal, preliminary investigation while information and evidence is fresh and witnesses are available.

b. Report findings by telephone to the Administrative Services Officer or the Safety Manager. At this time consultative assistance will be provided to the supervisor and the formal reporting requirements will be assumed by the NDC Headquarters Staff.

6. Analysis of mishap history will be accomplished by the Safety Manager. Standard methods will be utilized in addition to special methods prompted by mishap experience peculiar to dental care activities. Findings and statistics will be published throughout the Region by means of attachment to minutes of the Supervisors Safety Committee meetings.



CHAPTER 4

MISHAP PREVENTION AND HAZARD CONTROL

1. Policy. Prevention of mishap and occupational illnesses is a vital part of all activities and must be given continuous attention by all levels of management. In order to maximize the effectiveness of loss prevention efforts, there shall be adherence to prescribed standards and recognized safe practices.

2. Responsibilities.

a. Branch Heads and Department Heads are responsible to the Commanding Officer, through the line organization, for maintaining safe operations and practices and for the prevention of mishaps within their respective areas. They shall establish necessary internal procedures with the assistance of the Safety Manager for the administration of a constructive safety program. In order to carry out this responsibility all levels of management and supervision throughout the chain of command shall:

(1) Take necessary steps to ensure prompt reporting of injuries, occupational illnesses and property damage. (See Chapter 3)

(2) Ensure that plans and specifications for new construction and alterations to buildings and facilities have been prepared with thorough and critical consideration given to safety and fire protection features.

(3) Ensure that mishap prevention measures are taken to further the effectiveness of the safety program.

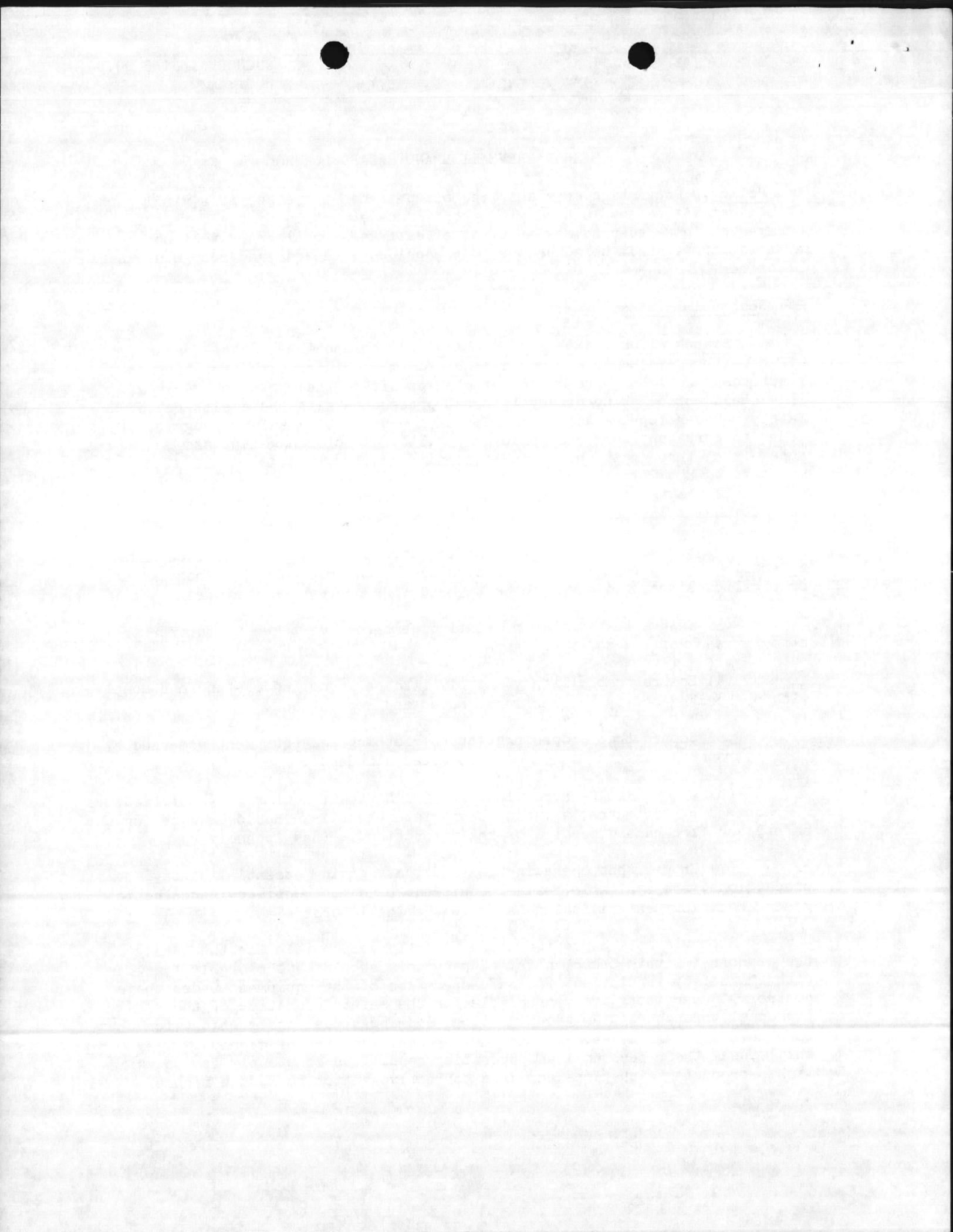
(4) Ensure that military and civilian personnel understand and comply with prescribed safety instructions, rules and regulations.

(5) Ensure that proper protective clothing and equipment are used by their personnel, in compliance with accepted standards.

(6) Conduct self-inspections for identification of safety deficiencies as required by reference (a). An appropriate checklist should be used for the safety and fire hazard portion of the inspections. (See Appendix J)

(7) Ensure that operating instructions, giving essential safety precautions, are available for all equipment used for dentistry, anesthetic gases, radiology, sterilization and prosthetics laboratories.

b. Supervisors. Supervisors are directly responsible for the safety of the personnel within their units. Supervisors should be thoroughly familiar with the safety regulations for safe operation of the equipment under their control. Supervisors are responsible for the safety education of their personnel through regular group meetings and individual instruction, for enforcement of safety regulations and for the reporting of mishaps. They shall check their personnel and operating conditions constantly for potential mishap-producing situations and take corrective action to reduce mishap



potential to the minimum without delay.

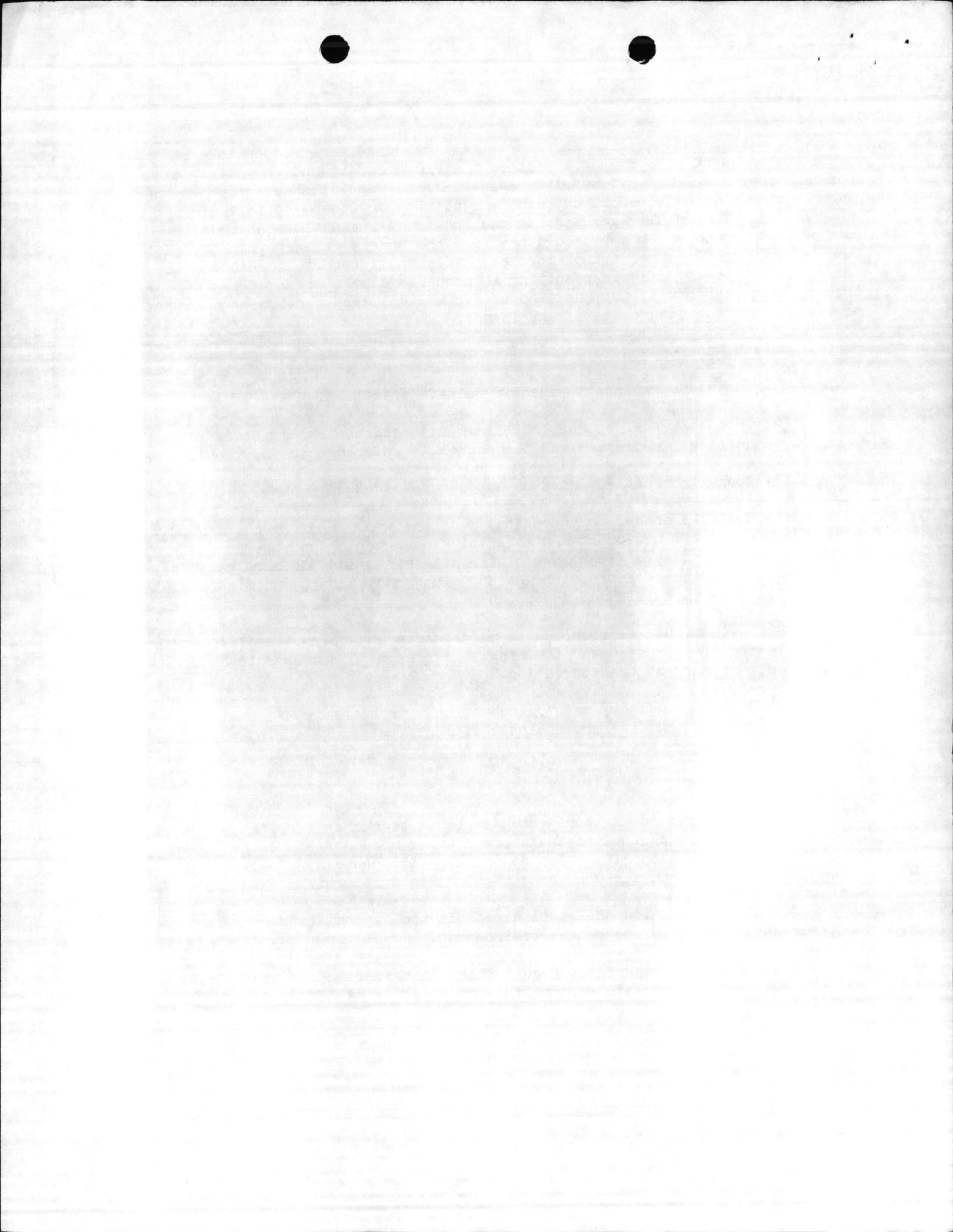
c. Military and Civilian Personnel. All personnel are responsible for accomplishing work in a manner to assure their own safety and the safety of others. They shall observe safety precautions and regulations applicable to their duties and shall report any unsafe condition or equipment to their supervisors. They shall exercise due caution in all situations and shall secure instruction on proper procedures from the Safety Manager when needed for the safe performance of their duties. They shall report immediately to their supervisor any mishaps resulting in property damage or any personal injury, no matter how slight, and report for medical treatment as soon as possible after the occurrence of any injury.

d. Safety Manager shall:

- (1) Survey operations to identify unsafe practices.
- (2) Inspect areas, spaces, materials and equipment to identify hazardous conditions, processes and procedures. (Reference (a) applies).
- (3) Study inherently hazardous exposures to reduce risks.
- (4) Review proposed construction, modifications, major repairs and maintenance projects; equipment and material procurements; and operational processes, plans and specifications to eliminate risks and minimize hazards, to assure application of appropriate safety standards, and to optimize the use of less hazardous materials and equipment.
- (5) Review vehicle procurement, maintenance and operations; monitoring driver selection, assignment and training; and recommend measures to assure safety in all aspects of transportation.
- (6) Monitor mandatory safety inspections (pressure vessels, elevators, conductive surfaces and fire protection equipment) to assure their proper and timely completion.

e. Standards.

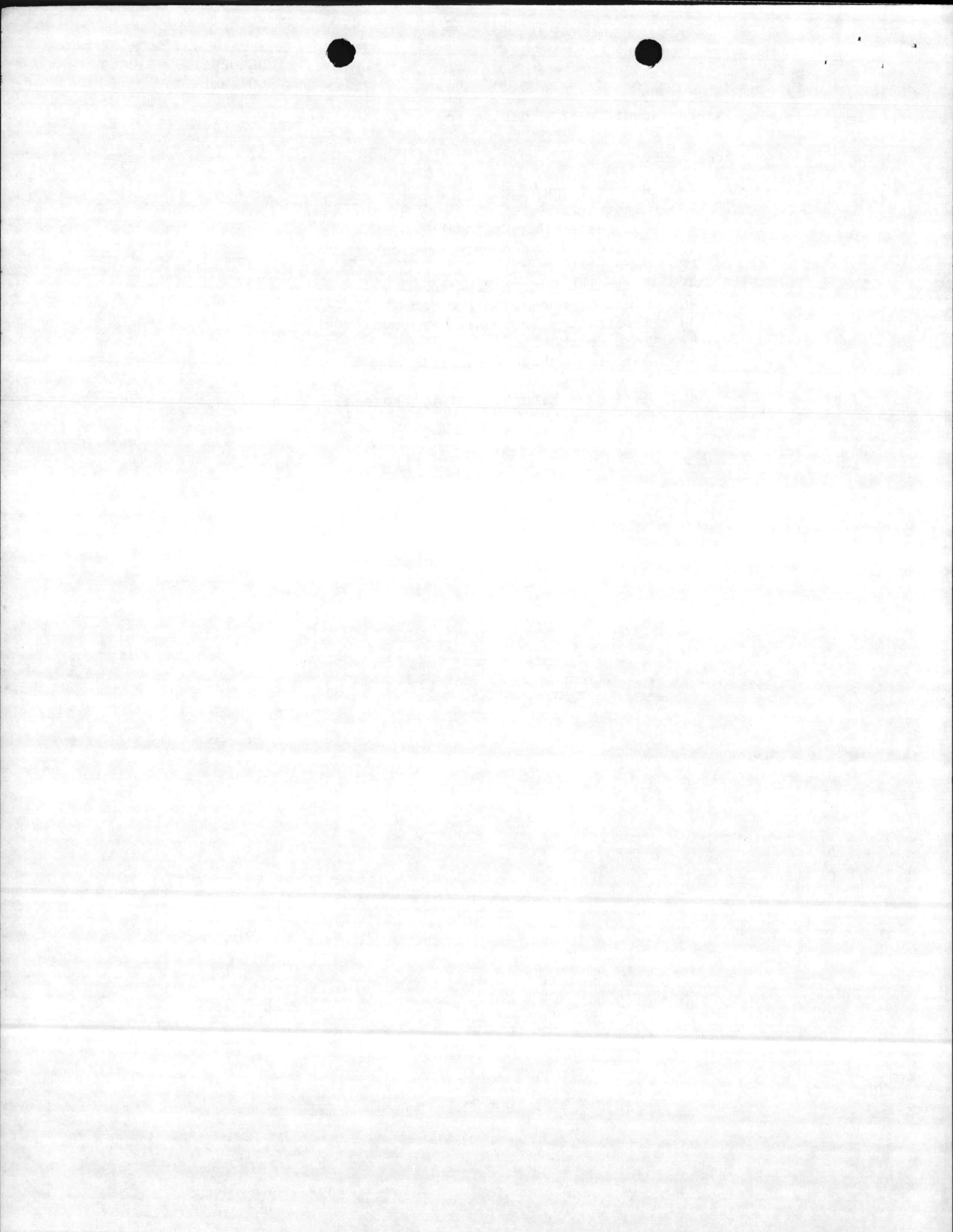
- (1) Appendixes to Chapter 4 contain local standards for mishap prevention and hazard control that are equal to or more stringent than those prescribed by higher authority. The appendixes also contain guidelines consolidated from recognized consensus standards and recognized safe practices.
- (2) All information and requirements in the appendixes were selected for their application to the dental environment.
- (3) The local standards and guidelines contained in the appendixes shall be reviewed by the safety committees on a cyclic basis for the purposes of updating, purging and improving them.



(4) For specific information, refer to the appendixes listed:

Appendixes:

- 4A Hazard Reporting
- 4B Electrical Safety
- 4C Compressed Gas Cylinders
- 4D Control of Hypodermic Needles
- 4E Mercury Control
- 4F Radiation Health Program
- 4G Sight Conservation Program
- 4H Respiratory Protection Program
- 4I Foot Protection
- 4J Self-Inspection Checklist
- 4K Fire Prevention
- 4L Hazardous Material Safety Program



APPENDIX 4A TO CHAPTER 4
HAZARD REPORTING

1. Hazard Reporting.

a. Any Navy personnel, military or civilian, who observe an unsafe or unhealthful practice or condition are encouraged to advise the work-place supervisor of the condition. Oral reports to a supervisor are encouraged; reports may also be made in writing.

b. If a person making a report desires not to report the condition to the supervisor, a written report may be made to the Safety Manager. A person reporting to the Safety Manager who desires anonymity will be so assured and the matter will be referred by the Safety Manager to the supervisor to initiate corrective action. In these cases, the names of the persons making the reports will be kept confidential.

c. All levels within the chain of command shall employ safeguards to ensure that Navy personnel are not subject to restraint, interference, coercion, discrimination or reprisal by virtue of participation in the command's safety and health program. The underlying objective in the hazard reporting system is to identify and correct deficiencies by means of a facilitated reporting chain in which it is forbidden to criticize or otherwise take adverse action against originators.

d. Strict adherence to the specified reporting procedures and chain of command requirements will be emphasized. Reports or appeals which by-pass the established procedures will be returned to the originator, thereby delaying prompt action on the report.

2. Responsibilities for Responses to Hazard Reports.

a. Supervisors.

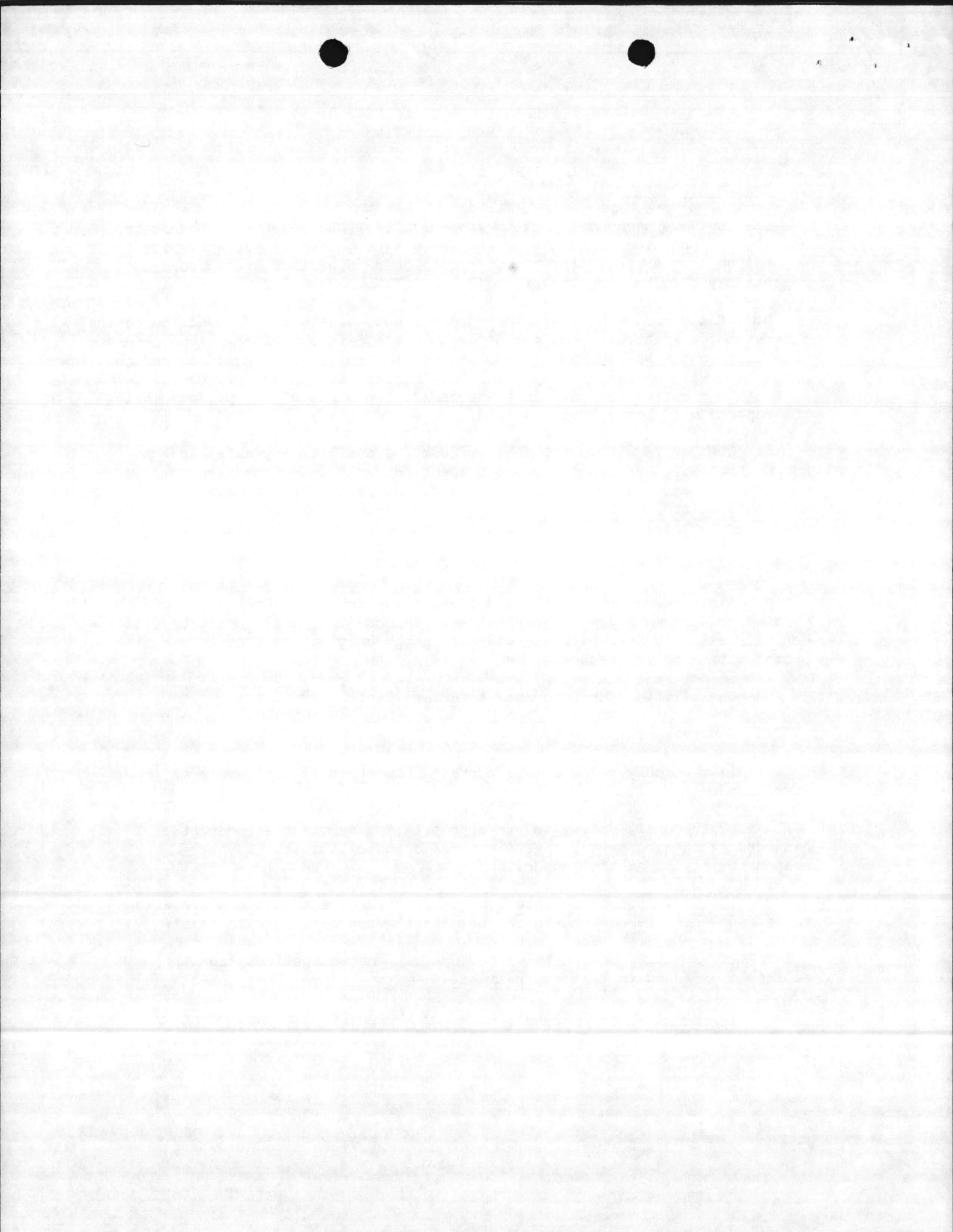
(1) Promptly respond to reports of hazardous conditions in their operations.

(2) Promptly convey to the appropriate supervisor any report of a hazardous condition pertaining to an area or operation that is the responsibility of another supervisor.

(3) Go in person to locations where hazardous conditions are alleged to be and under the circumstances the conditions are alleged to exist.

(4) Initiate action to correct safety and occupational health deficiencies found in their operations.

(5) Use interim measures to reduce the probability and severity of injury or illness pending the correction of safety and occupational health deficiencies.



(6) Notify the safety manager in writing within 5 working days following the receipt of a hazardous condition report. The notification will describe the condition and give the date it was reported, give its location, and state what action has been taken in response to the report.

(7) Encourage persons whom they supervise to promptly report unsafe and unhealthful conditions. Navy personnel are to be informed of their right and obligation to report hazardous situations and to be assured that they are not in any way subject to restraint, interference, coercion, discrimination or reprisal by virtue of their participation in the activity's occupational safety and health program.

(8) Continuously display procedures and instructions pertaining to hazardous condition reports and appeals, and assure that hazard report forms are available.

b. Safety Manager.

(1) Assure that the identities of persons who report alleged hazardous conditions are not disclosed if they request to remain anonymous.

(2) Promptly refer all written reports of hazardous conditions to the supervisor responsible for the working place in which a hazardous condition is alleged to be.

(3) Investigate immediately reports of imminent danger situations.

(4) Within 10 working days, notify the person who reports a condition alleged to be unsafe or unhealthful that:

(a) The condition is (or is not) hazardous.

(b) Action (to be specified) is being taken to correct the safety or health deficiency that is a consequence of the hazardous condition.

(c) Neither safety nor health is endangered by the reported condition.

(5) Inspect or investigate as required to:

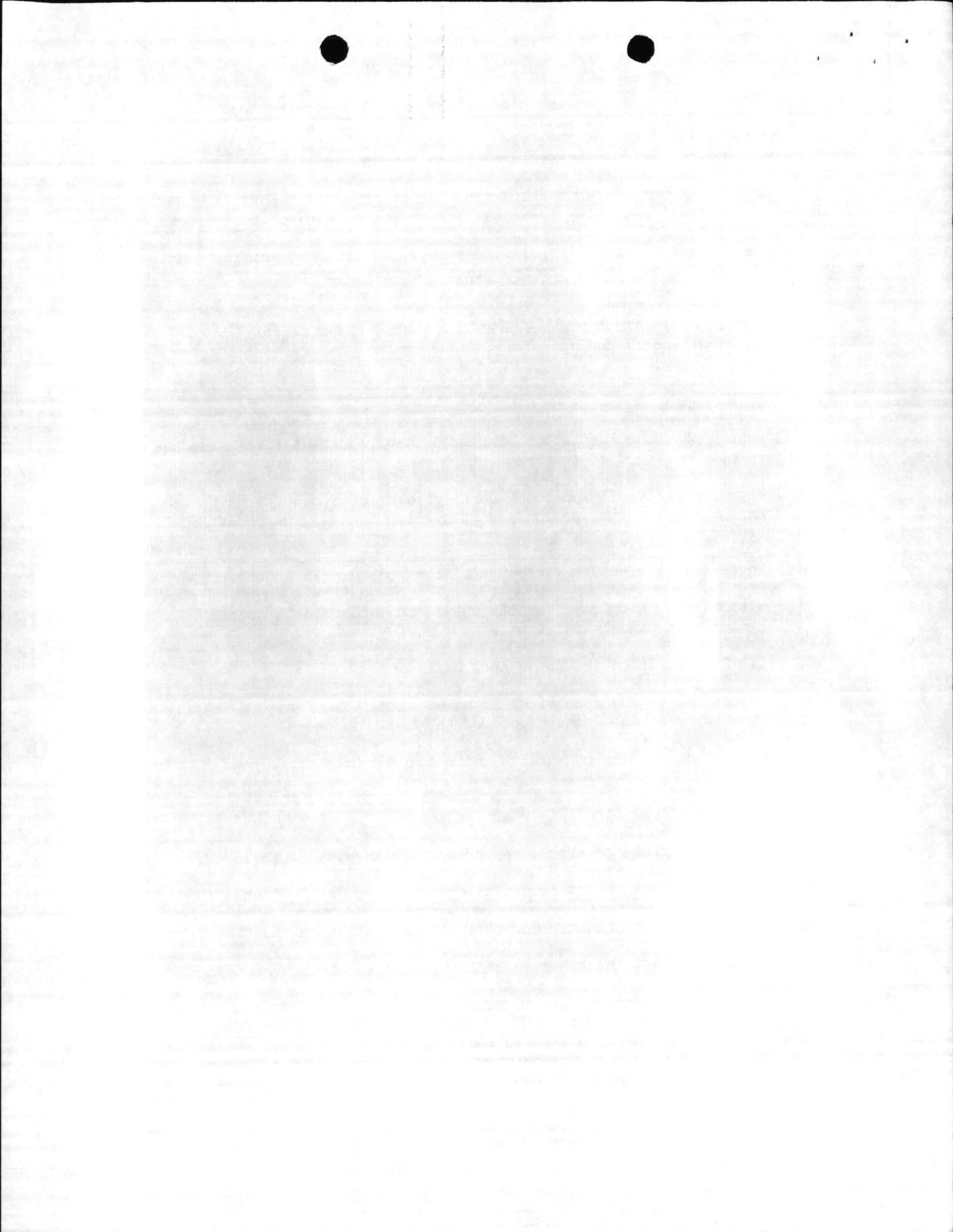
(a) Assure that the procedures prescribed herein are followed.

(b) Verify that conditions as alleged are (or, are not) hazardous.

(c) Ensure that adequate corrective measures are taken.

(d) Ensure that interim measures are being taken when hazardous conditions cannot be immediately corrected.

(6) Cause all verified hazardous conditions which are identified through these procedures to be entered on the activity record of safety and occupational health deficiencies which is maintained pursuant to reference (a).



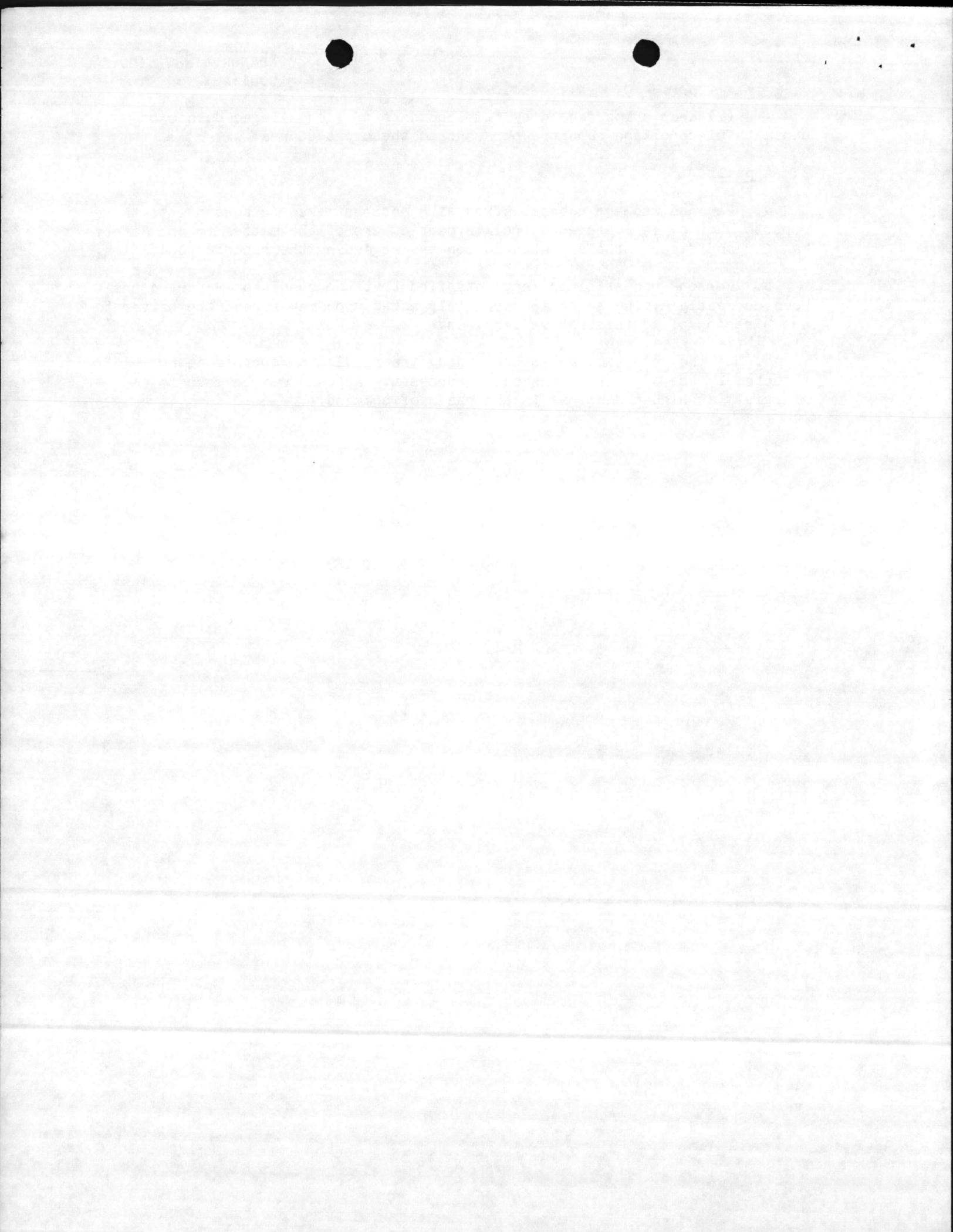
(7) Keep a log record by time and date of each alleged unsafe or unhealthful condition reported pursuant to these procedures.

3. Appeals.

a. Persons who are not satisfied with actions taken in response to their reports should, in conference, relate particulars of the matter to the Safety Manager and discuss their continued concern regarding the reported condition.

b. Persons who still are not satisfied that the condition reported has been correctly evaluated or appropriately acted upon may appeal the matter to the Director of Administrative Services.

c. If the resultant action regarding the condition reported is not accepted by the appellant, subsequent successive appeals may be made to officials at higher echelons in the chain of command.



APPENDIX 4B TO CHAPTER 4
ELECTRICAL SAFETY

1. For all personnel:

a. Installation or modification of wiring or electrical equipment shall be made only by Public Works electricians or dental repair personnel under an approved work order.

b. All electrical equipment with exposed metallic parts or equipment used in the vicinity of grounded surfaces shall be grounded. All requisitions for electrical equipment shall include this requirement. Additionally all electrical equipment with heating elements shall be equipped with a thermostatic switch to prevent overheating.

c. Flexible cords are to be considered equipment rather than a wiring method. Cords shall not be used as substitutes for fixed wiring without prior approval of the Chief, Repair Section, Operating Management Department.

2. For Dental Repair Personnel:

a. All electrical work shall be in accordance with the National Electrical Code (NFFPA No. 70).

b. Electrical power shall be disconnected and tagged before electrical equipment or wiring is serviced.

c. Except in a life threatening emergency, work shall not be done on live circuits or equipment without prior approval of the Head, Operating Management Department.

d. No live electrical connections shall be left unattended. All panel fronts and access openings shall be replaced any time the work area is left unattended.

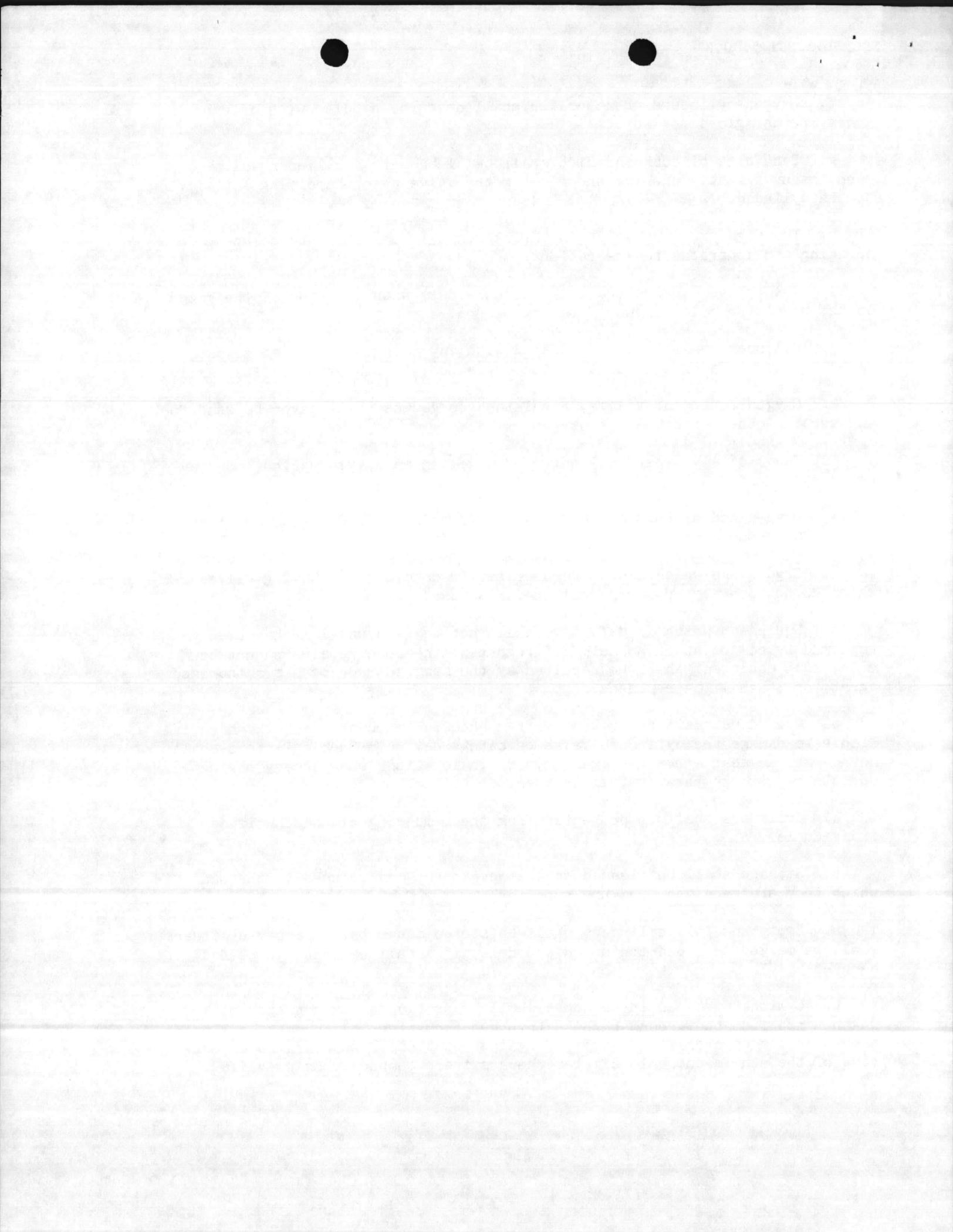


APPENDIX 4C TO CHAPTER 4
COMPRESSED GAS CYLINDERS HANDLING, STORAGE AND USE

1. The following safety rules pertain to all types of compressed gases:
 - a. Cap all cylinders not in immediate use.
 - b. Cylinders shall be transported in approved carts. A cylinder cart also serves as an acceptable support for a cylinder.
 - c. Contents shall be identified by a written name on a label near the neck; dependence solely on the cylinder color coding is not reliable.
 - d. Markings which are used for identification of contents of cylinder shall not be defaced or removed, including decals, tags, stencilled marks and upper half of shipping tag.
 - e. Even if they are considered to be empty, cylinders shall never be used as rollers, supports or for any purpose other than that for which they are intended.
 - f. Transfer of gas from one cylinder to another on Naval Dental Clinic property or by Naval Dental Clinic personnel shall be prohibited.
 - g. Cylinders shall be kept away from steam pipes and like sources of heat.
2. Special Precautions - Oxygen and Nitrous Oxide Cylinders and Manifolds
 - a. Combustible materials, such as paper, cardboard, wood and fabrics shall not be stored or kept near cylinders containing oxygen or nitrous oxide.
 - b. Never smoke or use flames near oxygen or nitrous oxide anesthesia equipment.
 - c. Check cylinders for proper chemical symbols: O₂ for oxygen; N₂O for nitrous oxide.
 - d. Oil, grease or readily flammable materials shall never be permitted to come in contact with oxygen cylinders, valves, regulators, gauges or fittings.
 - e. Regulators, fittings or gauges shall never be lubricated with oil or any other flammable substance.



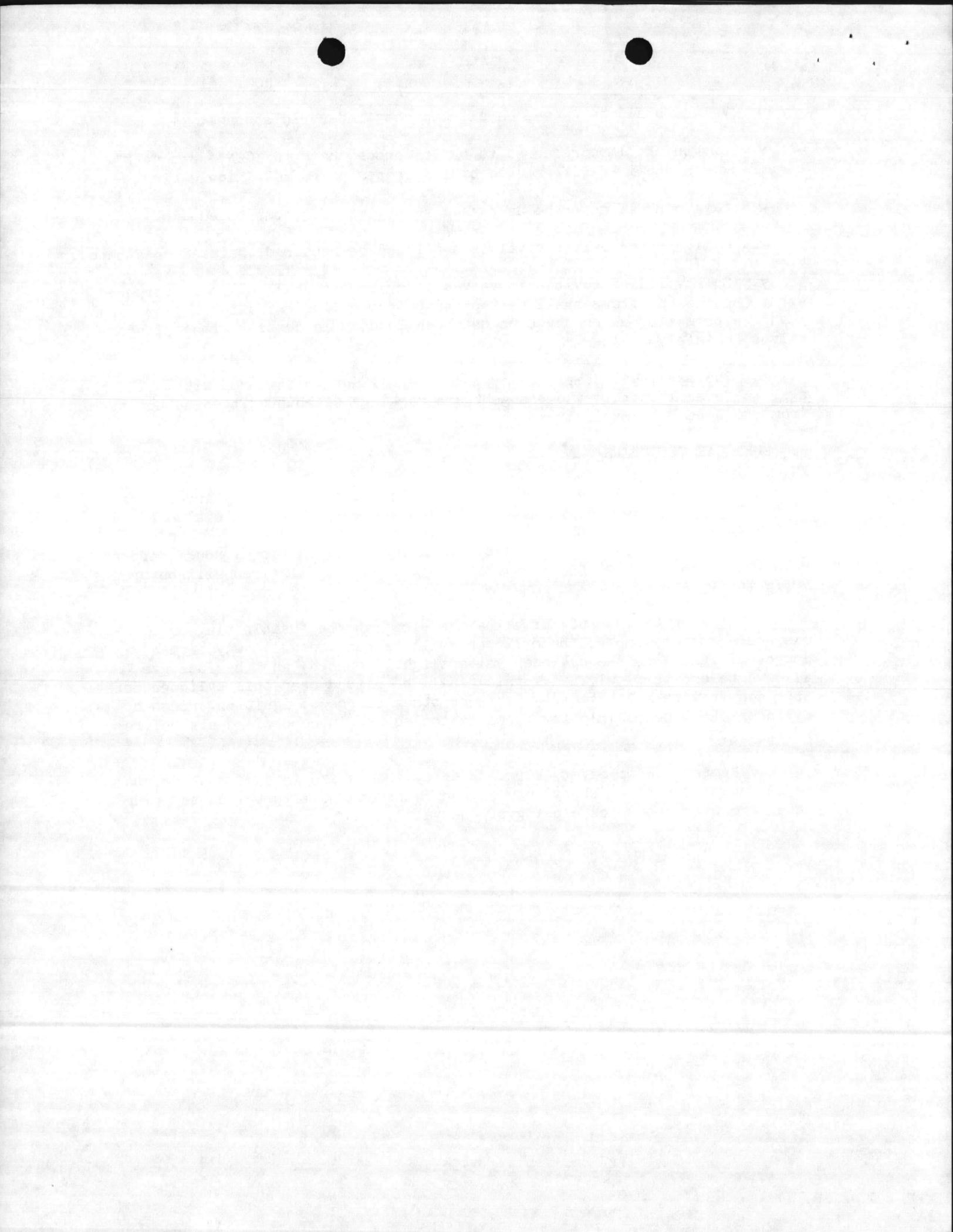
- f. Oxygen cylinders or apparatus shall never be handled with oily or greasy hands, gloves or rags.
- g. Particles of dust and dirt shall be cleared from cylinder valve openings by slightly opening and closing the valve before applying any fitting to the cylinder.
- h. The high pressure valve on the oxygen cylinder shall be opened before bringing the apparatus to the patient.
- i. The cylinder valve shall be opened slowly with the face of the gauge on the regulator pointed away from any person.
- j. Cylinders shall never be draped with any materials such as gowns, masks or caps. Fabrics saturated with oxygen or nitrous oxide ignite easily.
- k. Oxygen fittings, valves, regulators or gauges shall never be used for any service other than that of oxygen.
- l. Gases of any type shall never be mixed in an oxygen cylinder or any other cylinder.
- m. Oxygen and nitrous oxide shall always be dispensed from a cylinder through a pressure regulator.
- n. Regulators which are in need of repair or cylinders having valves which do not operate properly shall never be used.
- o. Equipment which is defective shall not be used until it has been repaired by competent personnel. If competent in-house repairs cannot be made, such equipment shall be repaired by the manufacturer or his authorized agent; or it shall be replaced.
- p. Cylinders shall be protected from abnormal mechanical shock which is liable to damage the cylinder, valve or safety device. Such cylinders shall not be stored near elevators, gangways or in locations where heavy moving objects may strike them or fall on them.
- q. Cylinders shall be protected from the tampering of unauthorized individuals.
- r. Storage shall be planned so that cylinders may be used in the order in which they are received from the supplier.
- s. Empty and full cylinders shall be stored separately. Empty cylinders shall be marked to avoid confusion and delay if a full cylinder is needed hurriedly.
- t. Cylinders stored in the open shall be protected against extremes of weather and from the ground beneath to prevent rusting. In summer, cylinders stored in the open shall be screened against continuous exposure to direct rays of the sun in those localities where extreme temperatures prevail.



- u. Valves shall be closed on all empty cylinders in storage.
- v. Oxygen shall be referred to by its proper name "OXYGEN", not "AIR". Liquid oxygen shall be referred to by its proper name, not "Liquid Air".
- w. Oxygen shall never be used as a substitute for compressed air.
- x. Cylinders or cylinder valves shall not be repaired, painted or altered.
- y. Safety relief devices in valves or cylinders shall never be tampered with. Sparks and flame shall be kept away from cylinders; a torch flame shall never be permitted under any circumstances to come in contact with cylinder valves or safety devices.
- z. The markings stamped on cylinders shall not be tampered with. It is against federal statutes to change these markings without written authority from the Bureau of Explosives.

3. FUEL-GAS CYLINDERS

- a. Vertical Position. Acetylene and liquified fuel-gas cylinders shall be placed with valve-end up whenever they are used. They should also be stowed in this position and not allowed to lie on their sides. If horizontal stowage is necessary, cylinders must be in vertical position 2 hours before using. Otherwise, acetone in which the acetylene is dissolved will be drawn out with the gas.
- b. Leaking Cylinders. If a leak develops at the fusible plug or elsewhere on a cylinder, the cylinder shall be removed well away from any source of ignition, the cylinder valve slightly opened, and the fuel gas allowed to escape slowly. A warning shall be placed near this cylinder not to approach it with a lighted cigarette or other source of ignition. Such a cylinder shall be plainly tagged as defective and in need of repair before refilling.
- c. Protection of Safety Plug. When cylinders are in use, nothing shall be placed on top of an acetylene cylinder which may damage the safety plug or interfere with the quick closing of the valve.



APPENDIX 4D TO CHAPTER 4
CONTROL OF HYPODERMIC NEEDLES

1. Background. The benefits of disposable hypodermic needles have been very significant. The hazards associated with lack of control of needles have also been significant in terms of drug abuse, injuries and transmission of disease. Accordingly, the Armed Forces, law enforcement agencies and the civilian community in general have a great interest in promoting strict control of new and used hypodermic needles.

2. Action.

a. Storage. New needles will be stored in a limited access area as defined in reference (f). Limited access may be achieved by means of a locked storeroom. The availability of the key should be limited to as few personnel as possible. Storage in a locked cabinet within the storeroom is an additional suggested safeguard.

b. Issue of New Needles. As an additional means of control, Branch Dental Clinics will restrict issues to one day's supply (estimated).

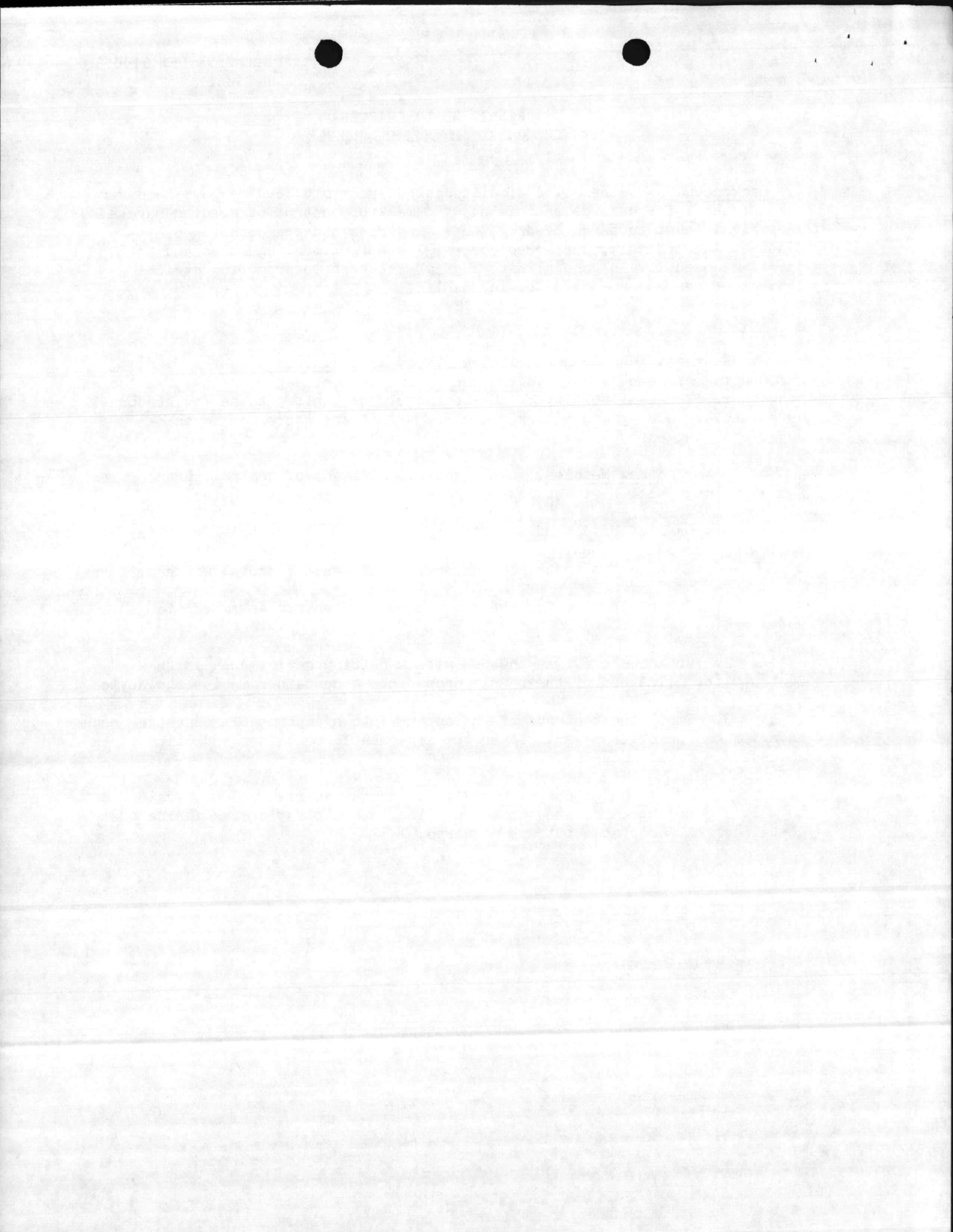
c. Disposal of Used Needles. After an injection has been given, the following procedures should be followed to prevent the transmission of disease by contact and to avoid injury to janitorial and waste disposal workers.

1. Replace protective sheath on used needles for an immediate safeguard.

2. Cut needle off at the hub with a cutting device such as the Destru-Clip. (The end of the needle drops into a container inside the device.)

3. Empty the contents of the cutter into a impermeable container such as a tin can or a glass jar. Cover the impermeable container and place it in an ordinary trash receptacle.

4. Additional steps or variations such as sterilization or using heat to melt a combination of sheaths and needles into a plastic mass inside the container are acceptable but not required.



APPENDIX 4E TO CHAPTER 4
MERCURY CONTROL

1. Background.

a. The principal mercury hazard in environments such as dental operatories is the cumulative effect of mercury on the body acquired by continuous inhalation of mercury vapors and by direct contact with mercury contaminated equipment and materials.

b. Mercury may enter the body by three routes -- inhalation, ingestion and skin absorption. Once mercury enters the body, it tends to localize in the brain, liver and kidneys. Prolonged, excessive exposure results in central nervous system disorders, severe psychic disturbances and physiological disorders. Mercury vapor and particulate matter such as waste amalgam may be inhaled from the atmosphere. Mercury may be ingested by eating with contaminated fingernails or by smoking in the work area. Mercury droplets may also be absorbed either through direct contact with intact skin or through breaks in the skin such as cuts and abrasions. The fact that mercury vapors are odorless and seldom detected by the human senses compounds the safety problem.

c. Mercury contamination in dental offices usually originates from spills in handling, leakage from capsules in trituration and mulling procedures, and from the evacuation of amalgam and free mercury during condensation and carving of restorations. Improper storage of scrap mercury and amalgam may contribute to mercury contamination.

2. Mercury hygiene preventive measures.

a. Alert all personnel involved in handling mercury, especially during training or indoctrination periods, of the potential hazard of mercury vapor and the necessity for observing good mercury-hygiene practices. Before working with mercury, all personnel should remove jewelry such as rings, wristwatches, bracelets, etc.

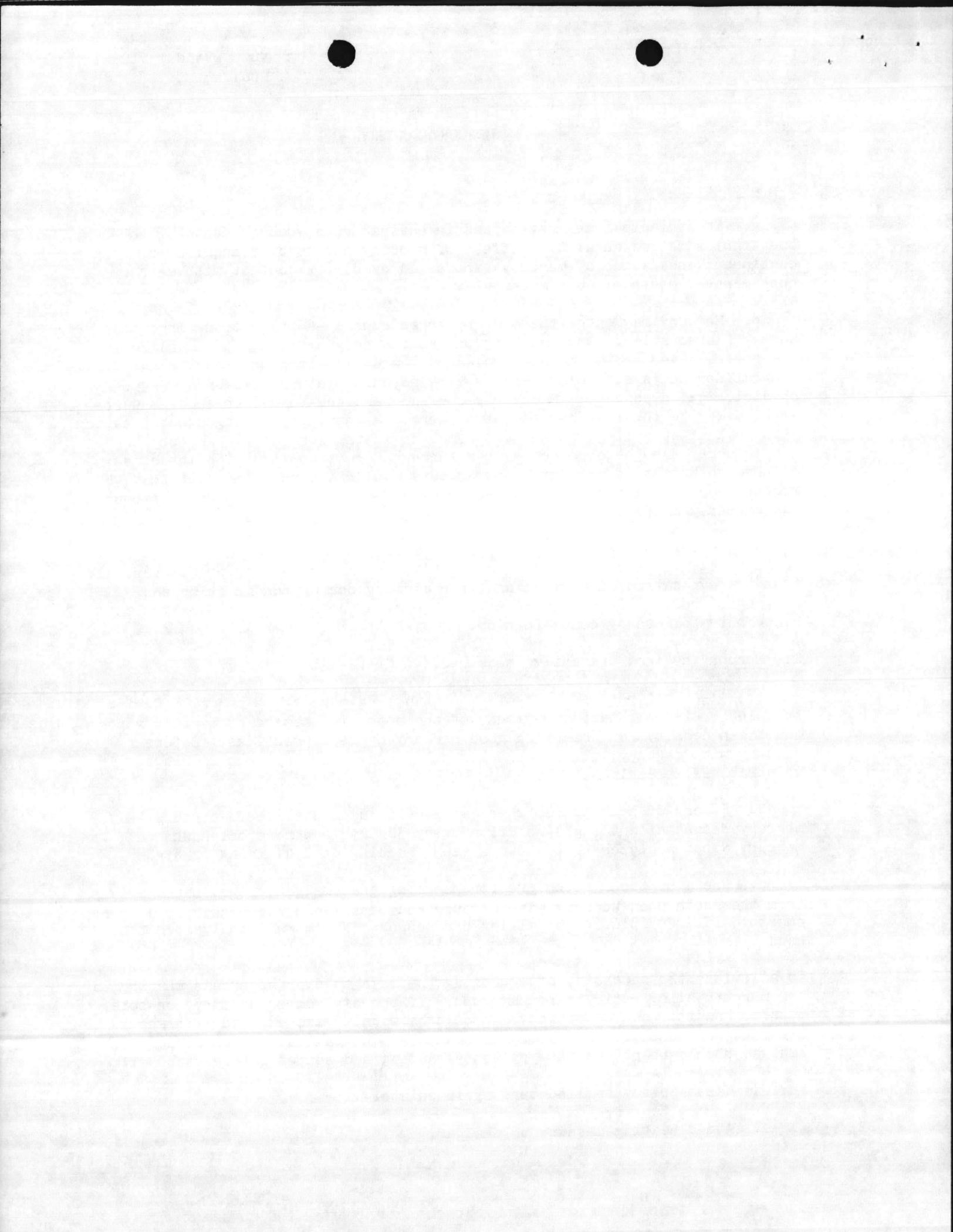
b. Floors of operatories where mercury is used shall be swabbed with mercury decontaminant (HgX) solution every 30 days and more often when a mercury vapor analyzer test shows a vapor reading of 0.01 mg/M³ or higher.

c. Use a no-touch technique for handling the amalgam. Keep hands away from the mouth when working with mercury and wash hands thoroughly as soon as possible after completion of mixing procedures. Never mull amalgam in the hand.

To alleviate the necessity of squeezing the mass to express excess mercury, a low mercury-alloy ratio is recommended. If the amalgam or mercury, or both, must be handled, nonporous gloves should be worn. Also exposed skin should be cleansed frequently. Any disposable materials contaminated with mercury or amalgam should be placed in a polyethylene bag and sealed before disposal.

d. Clean up any spilled mercury immediately.

e. Avoid heating mercury or amalgam.



f. Use water spray and high-volume evacuation when removing old or finishing new dental amalgam restorations. Exhaust systems that empty air into the operatory shall be fitted with a mercury filter. Use a face mask to avoid breathing amalgam dust. Salvage all amalgam scrap mercury or mercury bearing wastes (excluding those traces of amalgam waste that drain through the dental unit cuspidors) and store it in a tightly closed and labeled stainless steel jar containing mercury "X" solution in a sufficient quantity to cover the collected mass by a minimum of 1 inch (2.5cm).

g. Collect all amalgam scrap before removing rubber dam.

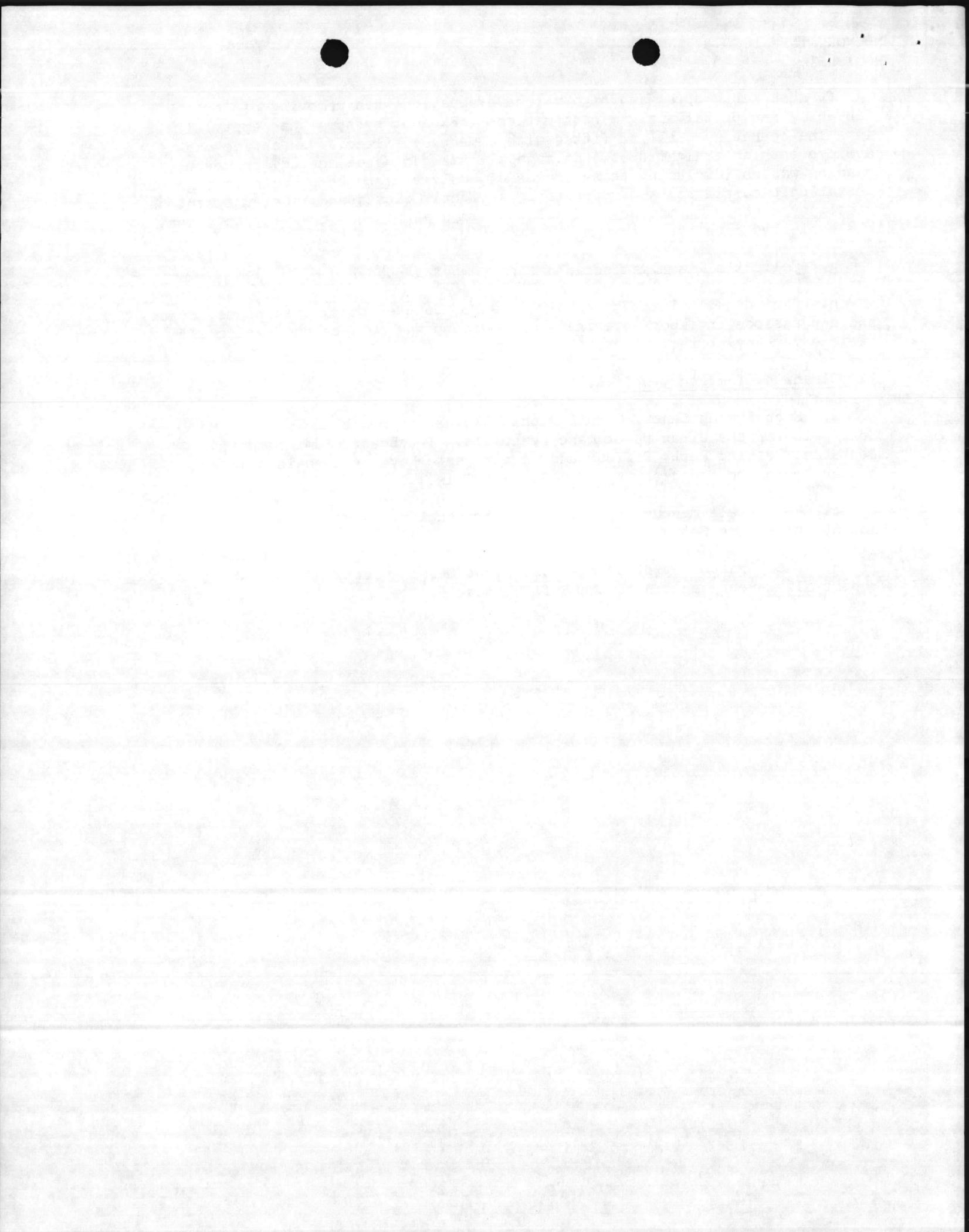
h. Periodically inspect cabinet drawers, counter tops, baseboards, cracks and depressions in floor covering where mercury may collect and remove all visible mercury contamination.

3. Clean-up of mercury spills.

a. Each Branch Dental Clinic within the Region has been issued a Mercury Spill Kit for the clean-up of mercury spills. The Branch Administrative Assistant/Leading Petty Officer and an alternate have been trained in the proper technique for clean-up of mercury spills.

b. Report all mercury spills to the Branch Administrative Assistant/Leading Petty Officer.

c. Each Branch Administrative Assistant/Leading Petty Officer shall report all mercury spills to the Safety Manager.



APPENDIX 4F TO CHAPTER 4
RADIATION HEALTH PROGRAM

1. Background. X-rays belong to the ionizing portion of the electromagnetic spectrum. That is, the beam of energy from x-ray machines can cause changes within human cells by producing ions and corresponding chemical changes. The conservative approach to x-radiation protection begins with the assumption that every dose of radiation produces damage. This is the approach that will be taken within this command. The equipment in use, the distances involved and the shielding available permit conservative use of x-rays. Personal monitoring of dose received, technical surveys of machines and physical examinations of persons exposed to x-rays provide further safeguards against significant damage to individuals who take radiographs of dental patients.

2. Radiological Safety Officer. The Head, Oral Diagnosis Department shall be assigned the collateral duty of Radiological Safety Officer. The Safety Manager shall monitor the program.

3. Radiation Protection Surveys.

a. X-ray spaces and machines are surveyed upon installation and once every two years thereafter by Radiation Health Officers of the Naval Regional Medical Center as required by reference (g). Detailed written reports are provided. The Safety Manager shall assist by arranging for timely inspections and following-up on required corrective actions.

4. Radiation Protection Standard (X-Radiation).

a. Source of Standard. The recommendations in reference (h) have the force of law as published in references (i) and (j). While the limits must not be exceeded, they should be used as guides and not be regarded as fine lines between safe and dangerous levels. The underlying philosophy of radiation protection is to keep all exposures as low as reasonably achievable.

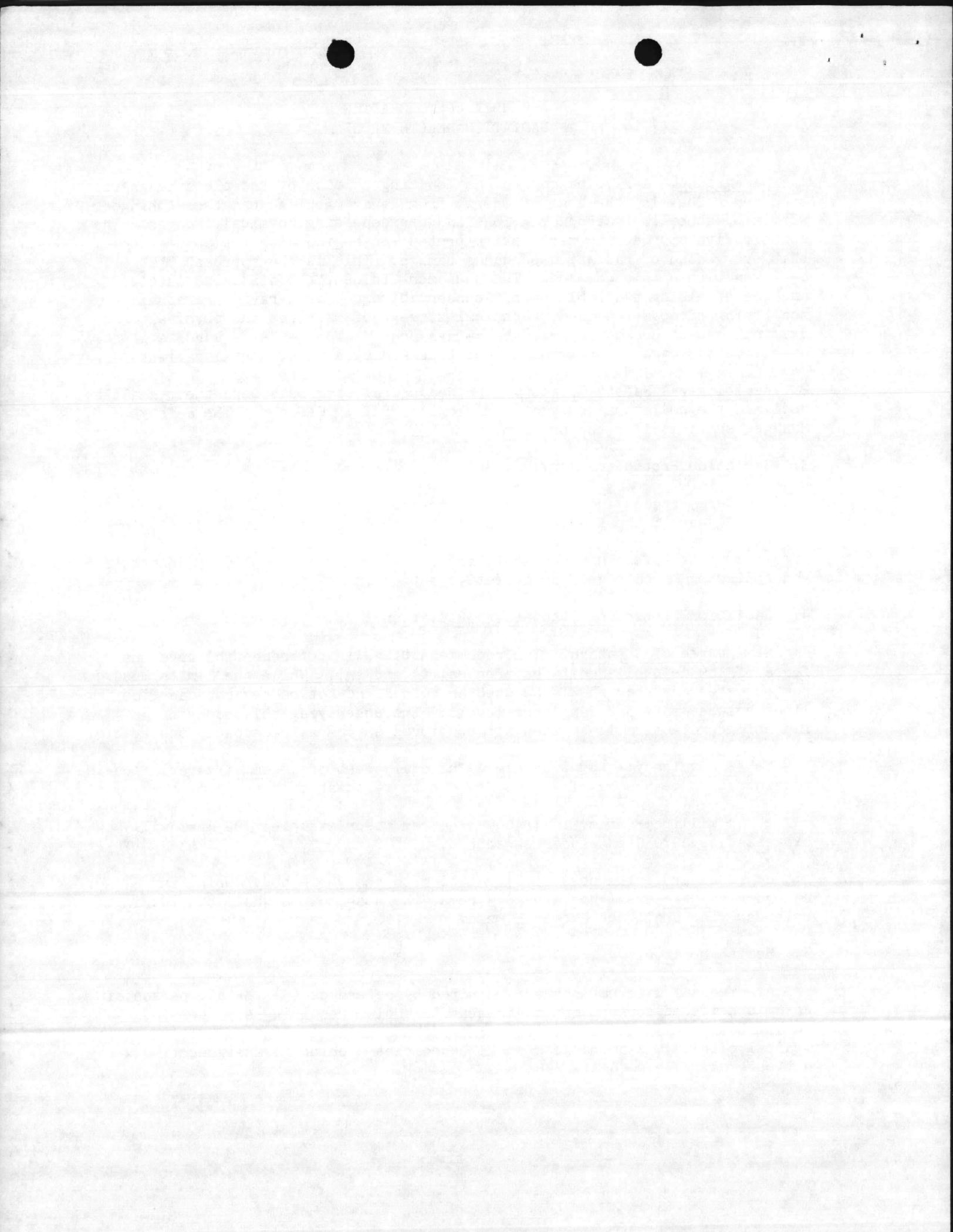
b. Equivalency: Roentgen-Rem. The equivalent of 1 rem of x-radiation is considered to be a dose of 1 roentgen due to x-radiation.

c. A millirem (mrem) is 1/1000 of a rem. For example: 30 mrem will be expressed as 00.030 on exposure records.

d. Standard. The dose of x-radiation to the whole body during any calendar quarter shall not exceed 3 rems; the dose to the whole body during a calendar year shall not exceed 5 rems.

5. Health Monitoring.

a. Medical examinations are required by reference (j) for all personnel being considered for routine assignment to duties requiring exposure to x-radiation. Branch Heads shall request the examinations at respective medical clinics. Examinations shall be completed prior to assignment to x-ray duties.



b. Periodic Medical Re-examinations for persons assigned continuously to x-ray duties shall be required by Branch Heads at 3-year intervals as required by reference (j).

6. Exposure Records. Personal dosimetry by means of film badges is practiced in order to document an individual's exposure to x-radiation, to determine if an individual has exceeded exposure limits and to aid in minimizing exposure. The Health Record custodians at Branch Medical Clinics ensure that exposure data is obtained and recorded. These histories have both medical and legal significance; they are recorded on DD Form 1141 (Record of Occupational Exposure to Ionizing Radiation) which is retained permanently in the Health Record.

a. Heads of Branch Dental Clinics shall provide to their respective Medical Clinic the names of individuals who are occupationally exposed to x-rays on a daily basis. Dental Officers and technicians who take x-rays only incidentally, such as when on duty after working hours, need not be included in the film badge program. Environmental film badges posted in the Dental Clinic provide sufficient exposure information for protection of incidental x-ray machine operators.

b. Each Head, Branch Dental Clinic, shall appoint a key person to receive and distribute new film badges and pick up and deliver exposed badges according to arrangements set forth by their respective Medical Clinic.

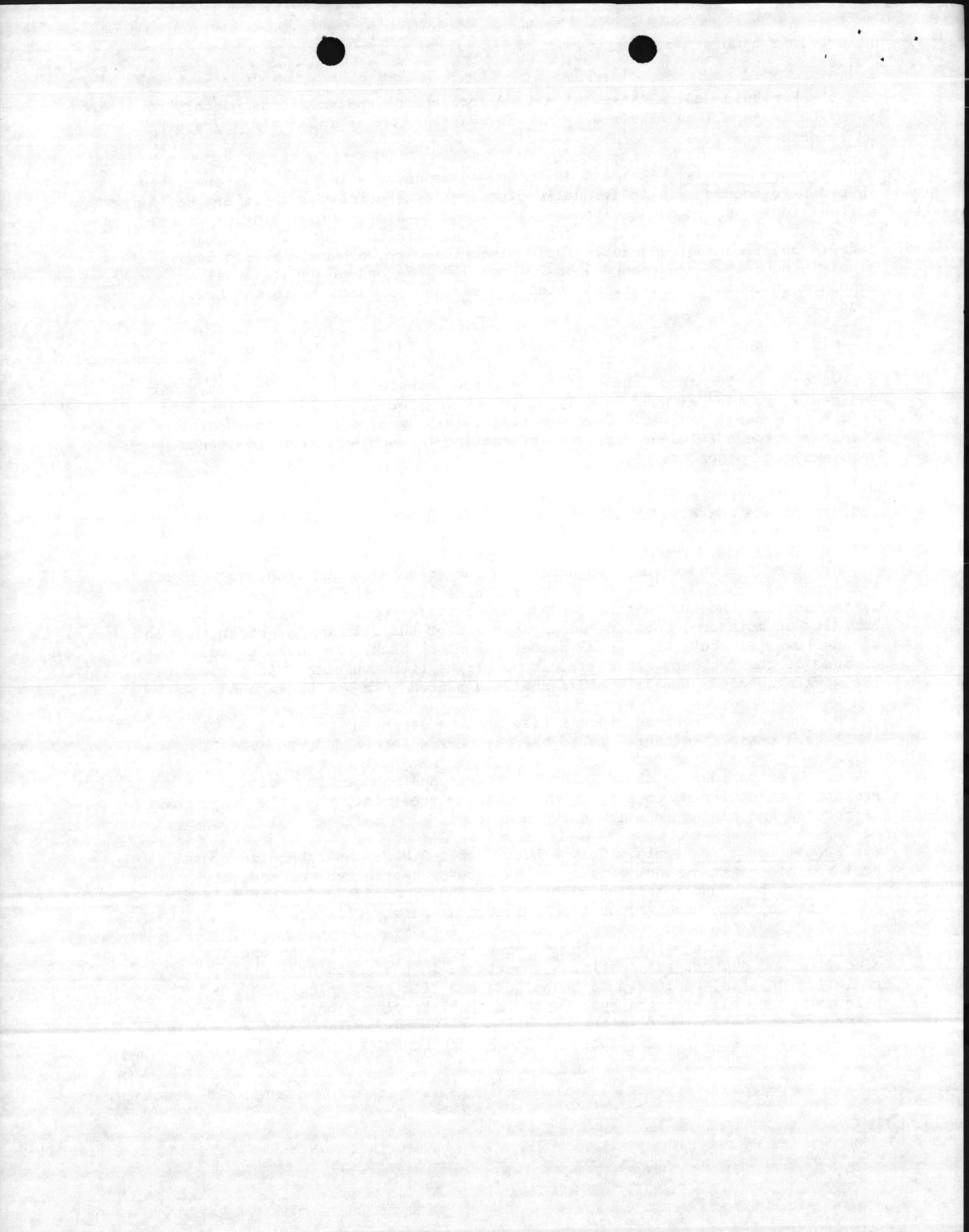
c. The film badge shall be worn on outer garments on the front surface of the trunk of the body. The wearer is responsible for the badge and the contained film and should take care to avoid its exposure to excessive heat, humidity or moisture. Writing on any portion of the film packet other than in the narrow area above the serial number (front or back) should be avoided because of the pressure sensitive nature of the film emulsion. At the end of the working period, the film badge shall be placed in a low background area.

d. Dental officers and technicians who are departing on leave or TAD shall turn their film badges in to the key person before departure.

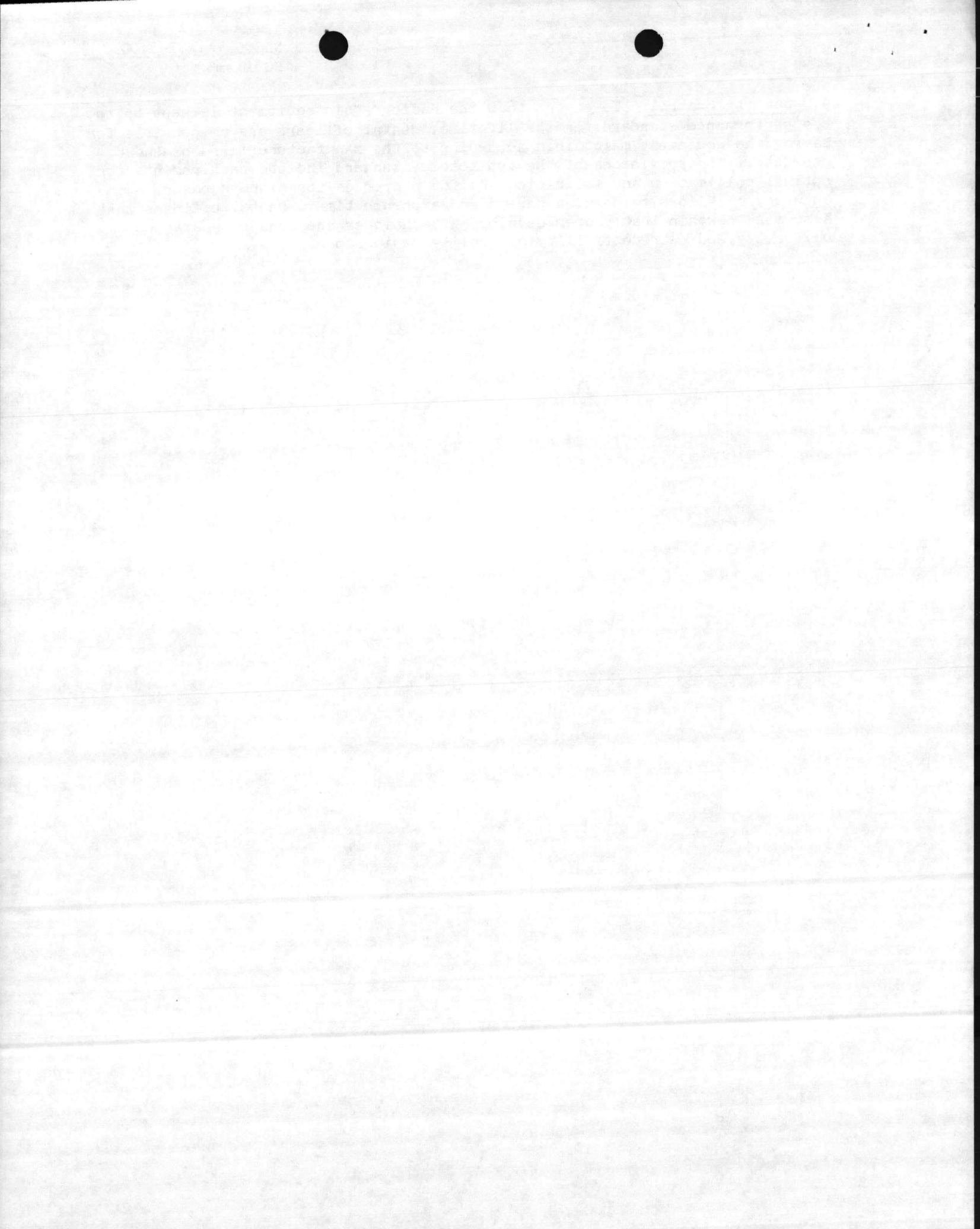
e. When persons in the film badge program are exposed to ionizing radiation as patients, undergoing diagnosis or treatment, the film badge shall be removed and placed in a low background area.

7. Protection of Patients. Only a D.D.S. or a D.M.D. can authorize dental radiographic examinations. Patients shall be protected from unnecessary x-radiation by reduction of unproductive exposure, aprons and other shielding prescribed by reference (h) or the Radiological Safety Officer.

8. Training. Radiographic equipment operators must receive appropriate education and demonstrate continued competence in the areas of anatomy, radiation physics, radiographic techniques and film processing that are relevant to dental radiography. Emphasis shall be placed on training in the safeguards to be followed in the operation of the particular machines and in the particular work circumstances of the Branch Dental Clinic.



9. Quality Control. To ensure that the radiographic equipment is kept up to the performance standard for its lifetime, dental officers are responsible for having the equipment maintained according to the manufacturer's recommended schedule. The provisions of the applicable standard include requirements for optimal collimation and filtration and for proper calibration to ensure accuracy of kilovolts peak, amperage and exposure time. Dental officers must also make certain that proper developing techniques are used to guarantee uniformity and reproductibility of quality radiographs.

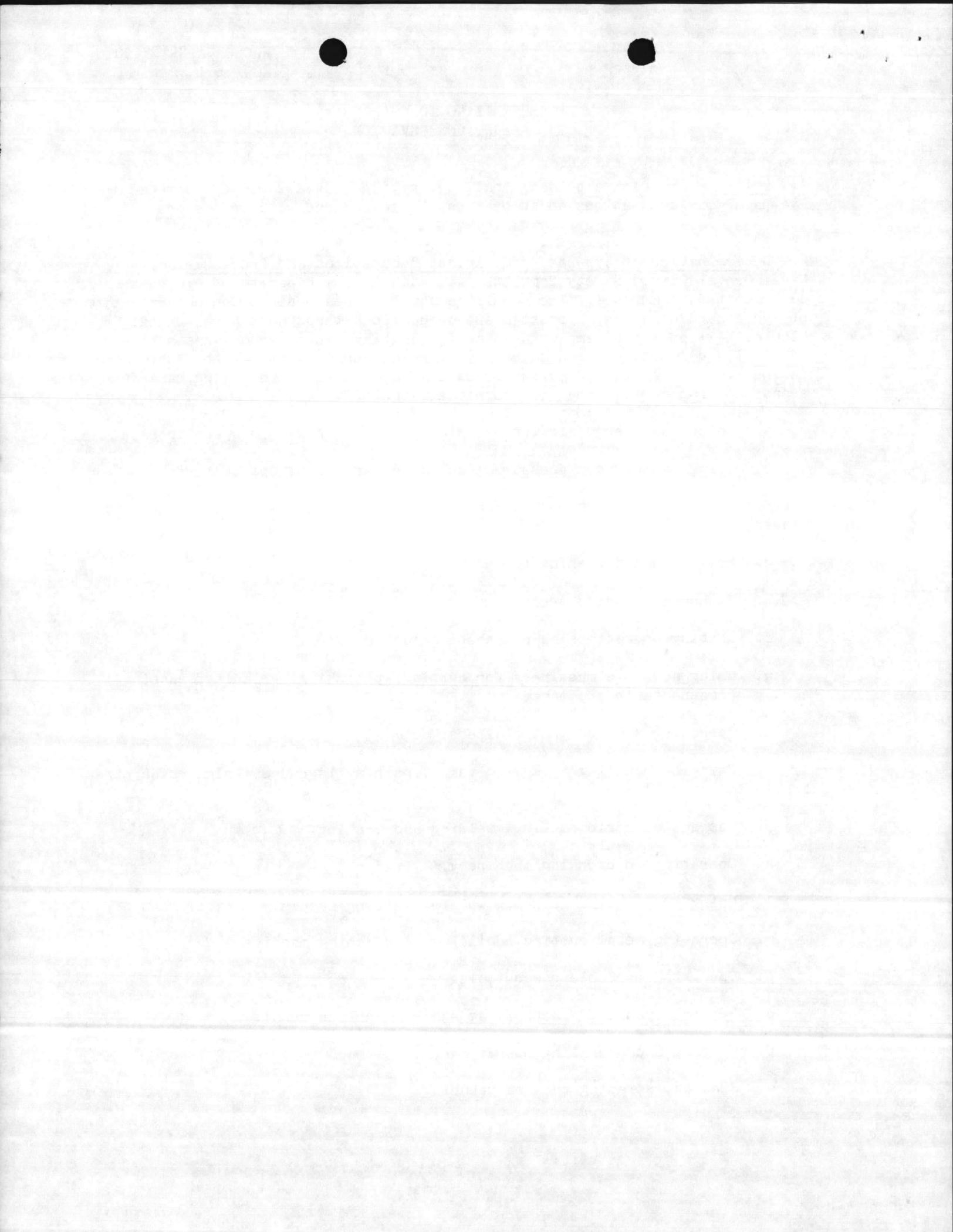


APPENDIX 4G TO CHAPTER 4
SIGHT CONSERVATION

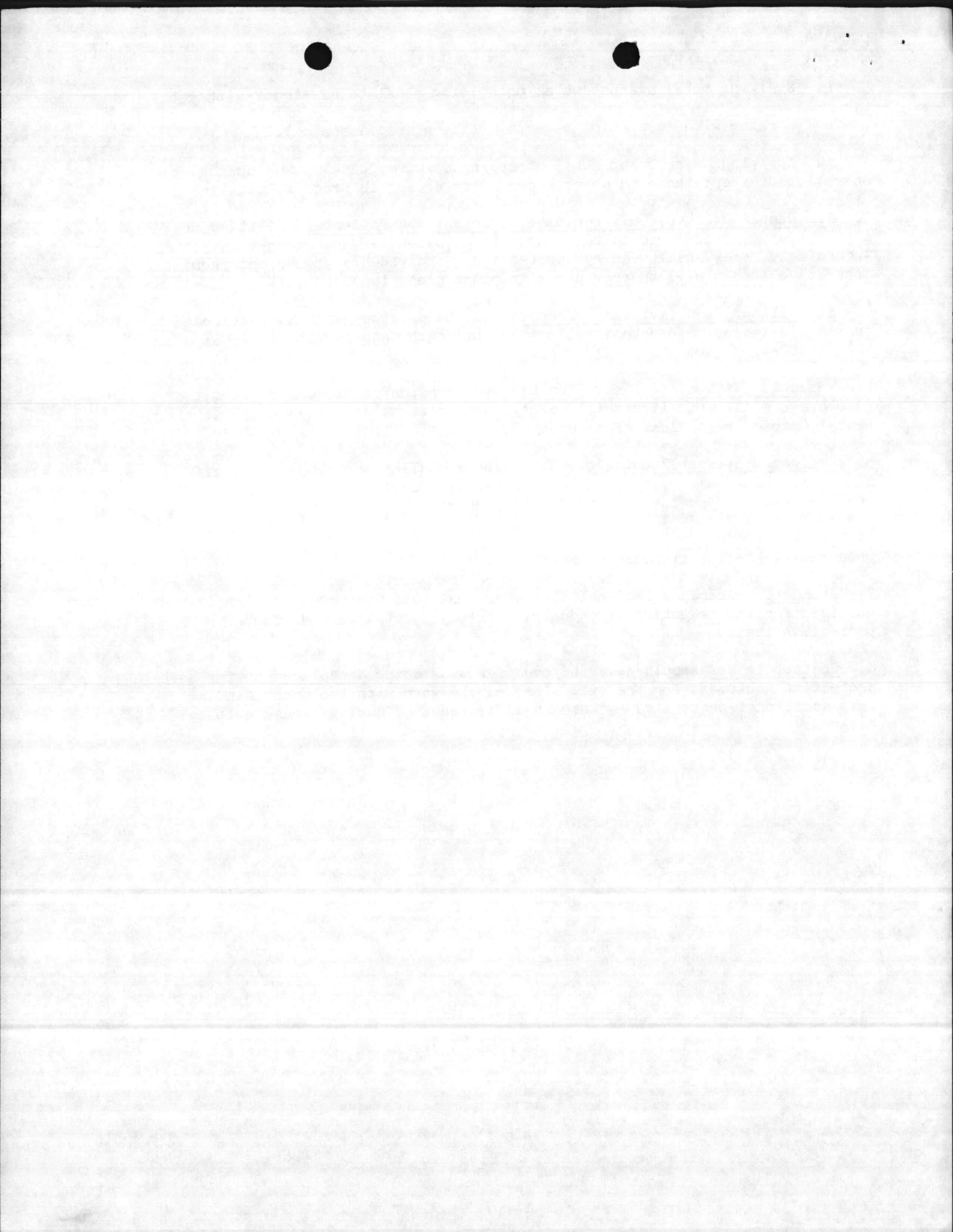
1. Policy. Protective eyewear shall be provided for all persons engaged in eye-hazardous occupations and processes, in accordance with references (a) and (k).

2. Determination of Eye-Hazardous Areas, Occupations and Processes. The Naval Dental Clinic Safety Committee will act in the capacity of eye hazard determination committee. The committee shall be responsible for determination of eye hazardous areas, processes and occupations throughout Naval Dental Clinic. All personnel employed in or frequenting eye hazardous areas thus identified will be required to comply with safeguards listed within this instruction. The list below may be used as a guide in identifying hazardous areas and procedures. The list is not all-inclusive.

- a. Using compressed air for cleaning purposes or within operatories.
- b. Using water under pressure such as cooling of handpiece burs.
- c. Removing restorations and/or tooth structure in cavity or crown preparations.
- d. Scaling and polishing teeth.
- e. Stannous fluoride treatments.
- f. Casting operations in prosthetics laboratories.
- g. Using abrasive machinery for cutting, polishing, grinding, shaping, etc. of prosthodontic appliances.
- h. Operating sand or grit blasters.
- i. Using or handling acids, solvents, paints, lacquers, thinners or other irritants.
- j. Gas and electric cutting, welding and brazing.
- k. Operating woodworking machinery.
- l. Using or dressing grinding wheels, buffing wheels.
- m. Operating metal cutting, drilling or punching machinery.
- n. Operating portable power tools.
- o. Heating, pouring or otherwise handling molten metal.
- p. Crating and uncrating operations.
- q. Scaling, scraping or wire brushing.



- r. Striking metal against metal or holding metal to be struck with metal.
 - s. Working with insulation material (fiberglass, asbestos).
 - t. Applying or removing metal strapping or wire; packing and unpacking operations (except those in which paper or cardboard is used exclusively).
3. All Dental Officers, all Dental Technicians and Patients, (military or civilian), are considered to be engaged in an eye-hazardous occupation. Accordingly, they shall wear eye protection. Individuals who do not require corrective lenses will be provided with plane clear lenses.
- a. Military and Civilian personnel will be provided with Navy standard frames and lenses. These assemblies meet strength requirements for chairside and prosthetics laboratory exposures.
4. Monocular vision. Any civilian employee considered "industrially blind" in one eye shall wear industrial safety spectacles at all times while at the Dental Clinic, regardless of occupation.
5. Emergency Eyewash Fountains. Supervisors shall ensure that all staff members within their clinics know where eyewash fountains and emergency (deluge) showers are located and how they operate.
6. Other eye and face protective equipment will be evaluated, selected and procured by the Safety Manager as needed.
7. Standard. American National Standards Institute Standard Z87.1 shall be utilized for the selection of industrial safety spectacles and other protective items.
8. Contact lenses should never be considered as being a replacement for safe protective equipment for the eye. They may be worn with the understanding that additional protective eyewear shall be required during exposure to eye hazards.



APPENDIX 4H TO CHAPTER 4
RESPIRATORY PROTECTION PROGRAM

1. Background.

a. The Occupational Safety and Health Administration Regulations (OSHA, 29 CFR 1910.134) reference (i), requires that personnel shall be protected from those occupational diseases caused by breathing air containing hazardous concentrations of harmful dusts, mists, fumes, gases or vapors. The primary means of control shall be accomplished by use of respiratory protective equipment.

b. The following sections contain guidance to enable Naval Dental Clinic, Norfolk to meet the requirements for a minimal acceptable program as promulgated by 29 CFR 1910.134. In-depth guidance and information shall be obtained by referral to ANSI Standard 288.2-1969; Practices for Respiratory Protection.

2. Responsibilities.

a. The Safety Manager, Code HQ25 is responsible for the overall administration of the program. He shall advise the heads of departments of the areas, occupations and processes which require the use of respiratory protection. The Safety Manager will provide specifications and standards for the equipment used in this program. He will maintain a promotional and educational program to ensure maximum benefits and is responsible for appraisal of the program. All new respiratory protective equipment shall be evaluated and approved by Code HQ25 prior to purchase.

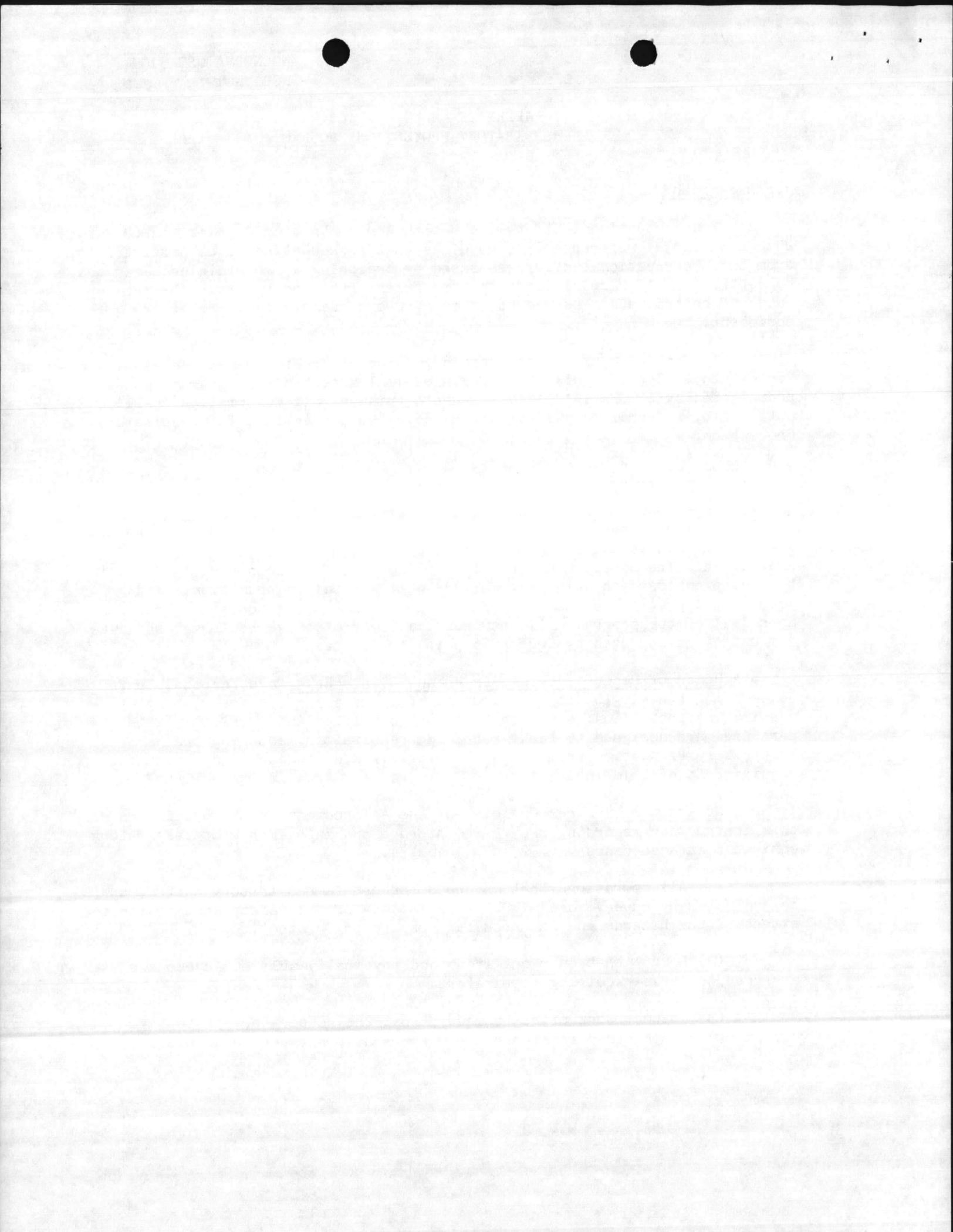
b. Heads of Departments and/or Branch Clinic Heads are responsible for determining the eligibility/requirement of their employees for wearing respiratory protection; ensuring that only qualified and physically able personnel are assigned to tasks requiring respirators; ensuring the Respiratory Protection Program is adequately funded in accordance with the requirements of this instruction.

c. Supervisors are responsible for the enforcement of the provisions of this instruction regarding use, care, storage and maintenance of respiratory equipment in accordance with 29 CFR 1910.134.

(1) All operations that may cause or create respiratory hazards shall be evaluated by supervisors with the assistance of the Safety Manager for the extent of the hazards and the need for respiratory protection.

(2) Ensure that only qualified and physically able employees are assigned to tasks requiring respirators.

(3) Inspect work sites to ensure that the respiratory protective equipment is being used in accordance with requirements of this instruction.



d. Individual employees are responsible for:

(1) Selection and use of respirators in accordance with the training provided under this appendix.

(2) Reporting of unusual conditions, conflicts at worksite or observed violations of requirements.

(3) Cleaning respirators when necessary.

e. The Naval HOSPITAL, PORTSMOUTH, Industrial Hygiene Branch is responsible for:

(1) Conducting surveys to determine airborne concentrations of hazardous contaminants in the work environment.

(2) Providing information on airborne concentrations of hazardous substances and specific health hazards involved.

(3) Providing assistance in industrial hygiene aspects of the respiratory protection program:

(a) Developing and assisting in the conduct of training programs for Naval Dental Clinic, Norfolk personnel.

(b) Providing specifications of types of respirators for new or unusual operations.

(4) Evaluating existing engineering controls and providing recommendations for improvements.

3. Procedures.

a. Selection of Respirators.

(1) All respiratory protective systems used shall carry the National Institute for Occupational Safety and Health (NIOSH) approval.

(2) Respirators shall be selected with consideration of the following factors:

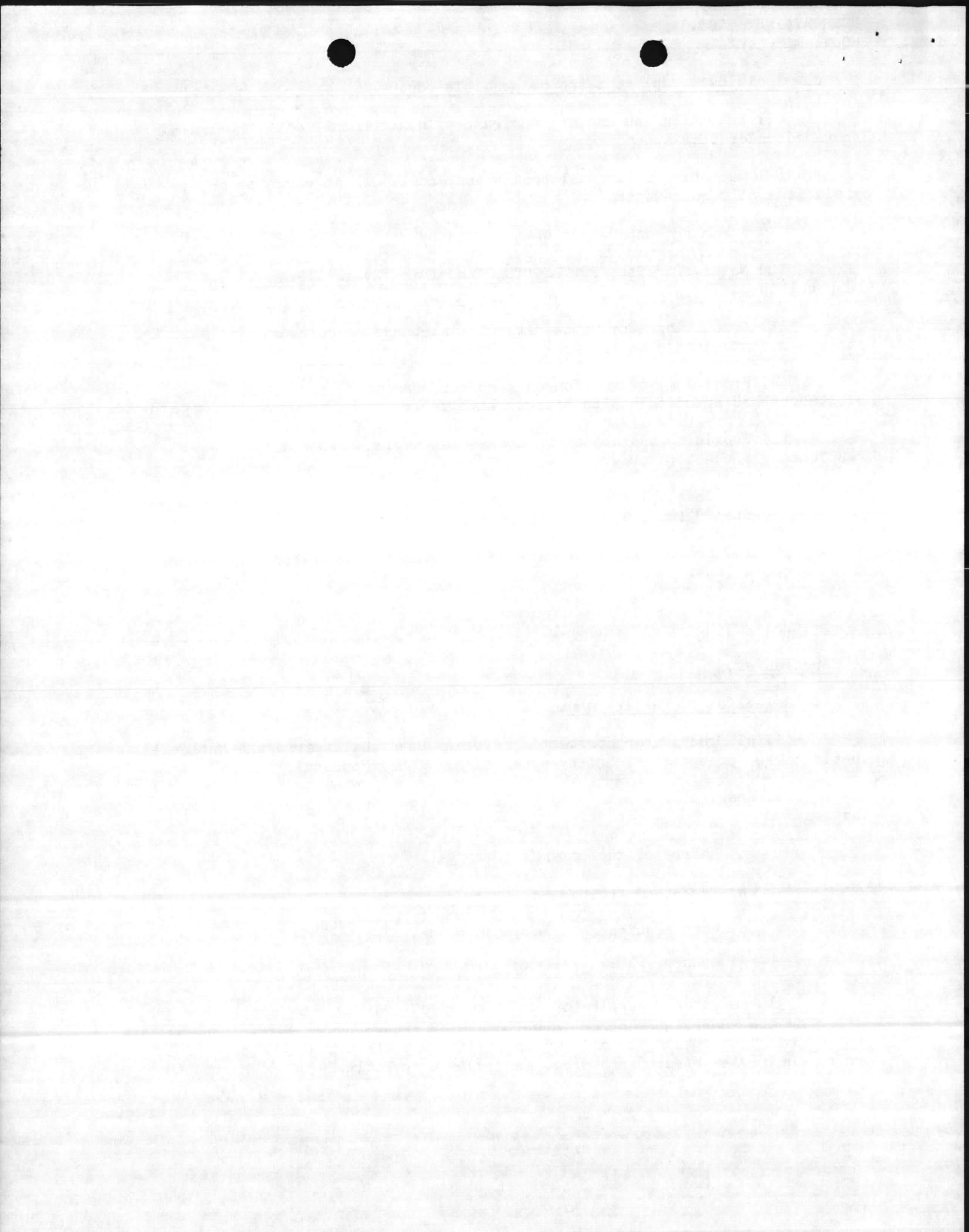
(a) Nature of the hazard.

(b) Extent of the hazard.

(c) Work requirements and conditions.

(d) Respirator limitations.

(3) The correct respirator shall be specified for each applicable job, either by the supervisor and/or in written work procedures. Respiratory protection requirements for all new or revised processes shall be determined during the review of such processes as required by Title 29, CFR, Part 1960.



4. Use of Respirators.

a. Respirators shall be used as issued. No modifications or substitutions to issued equipment shall be permitted. Any modification, no matter how slight, will result in voiding of respirator approval.

b. Fitting.

(1) All respirator users shall be properly instructed in selection, fitting, inspection, use, maintenance and limitations of respirators.

(2) The face-piece fit of the respirator shall be checked each time the respirator is put on.

(3) Respirators shall not be worn when conditions such as growth of beard, sideburns or temple pieces on glasses prevent a good face seal.

(4) Personnel who must wear corrective glasses may, as a temporary measure, use glasses with short temple bars or no temple bars which can be taped to the wearer's head. Permanent solutions include use of systems which allow for mounting corrective lenses inside full face-pieces. Fitting shall be accomplished by a qualified individual to ensure good vision, comfort and a gas tight seal.

(5) The wearing of contact lenses with a respirator in contaminated atmospheres shall not be permitted.

c. General Conditions of Use.

(1) A respirator shall be used only by the person to whom it was issued.

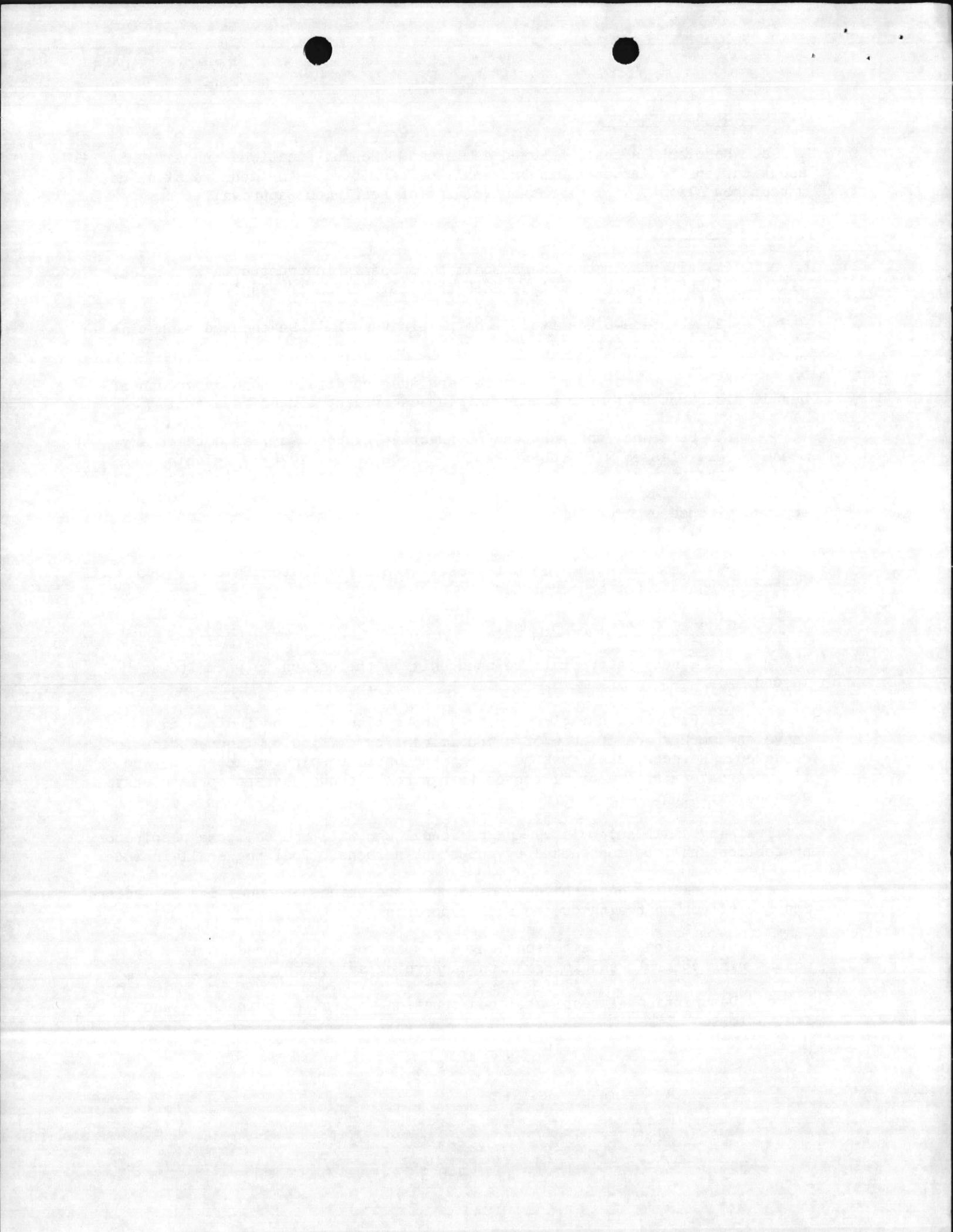
(2) Personnel using respiratory protection shall be instructed to leave the work space if odor of a contaminant or difficulty in breathing is detected. Re-entry shall not be undertaken until respirator integrity and fit, adequate air flow or filter cartridge replacement, as appropriate, have been accomplished.

5. Training. All supervisors and personnel who will use or issue respiratory protection shall be instructed by competent persons. Training shall include:

a. Information on airborne contaminants to which personnel may be exposed and the effect on health due to such exposures.

b. Discussion of the reasons why a respirator is required in lieu of engineering controls and information concerning selection.

c. Description of respirator construction, operating principles and limitations.



d. Instruction in fitting the respirator properly and checking for adequacy of fit.

e. Methods of storage, inspection, maintenance and cleaning of respirators.

f. Significance of and requirements for maintenance of NIOSH approval.

6. Maintenance and Care of Respirators.

a. Inspection for defects. All respirators shall be inspected routinely before and after each use. The respirator inspection shall include the condition of the face-piece, head-bands, valves, canisters and connecting tubes, where applicable.

b. Cleaning and disinfecting.

(1) Respirators, other than those for emergency use, shall be turned in, cleaned and disinfected as frequently as necessary, preferably daily, but at intervals no longer than 30 days.

(2) Each respirator user should be briefed on the cleaning procedure and be assured that he will always receive a clean and disinfected respirator.

(3) Cleaning procedures shall be in accordance with the procedures set forth in ANSI Standard 288.2-1969; Practices for Respiratory Protection. The elements of the cleaning procedure shall be:

(a) Disassembly of the respirator.

(b) Cleaning of the respirator in cleaner-disinfectant or detergent solution. Cleaner-disinfectant shall be chosen in accordance with manufacturer's recommendations or as specified by the Respiratory Protection Program Administrator in consultation with Naval Regional Medical Center Industrial Hygiene Branch.

(c) Rinsing with clean, warm water.

(d) Drying in a clean area.

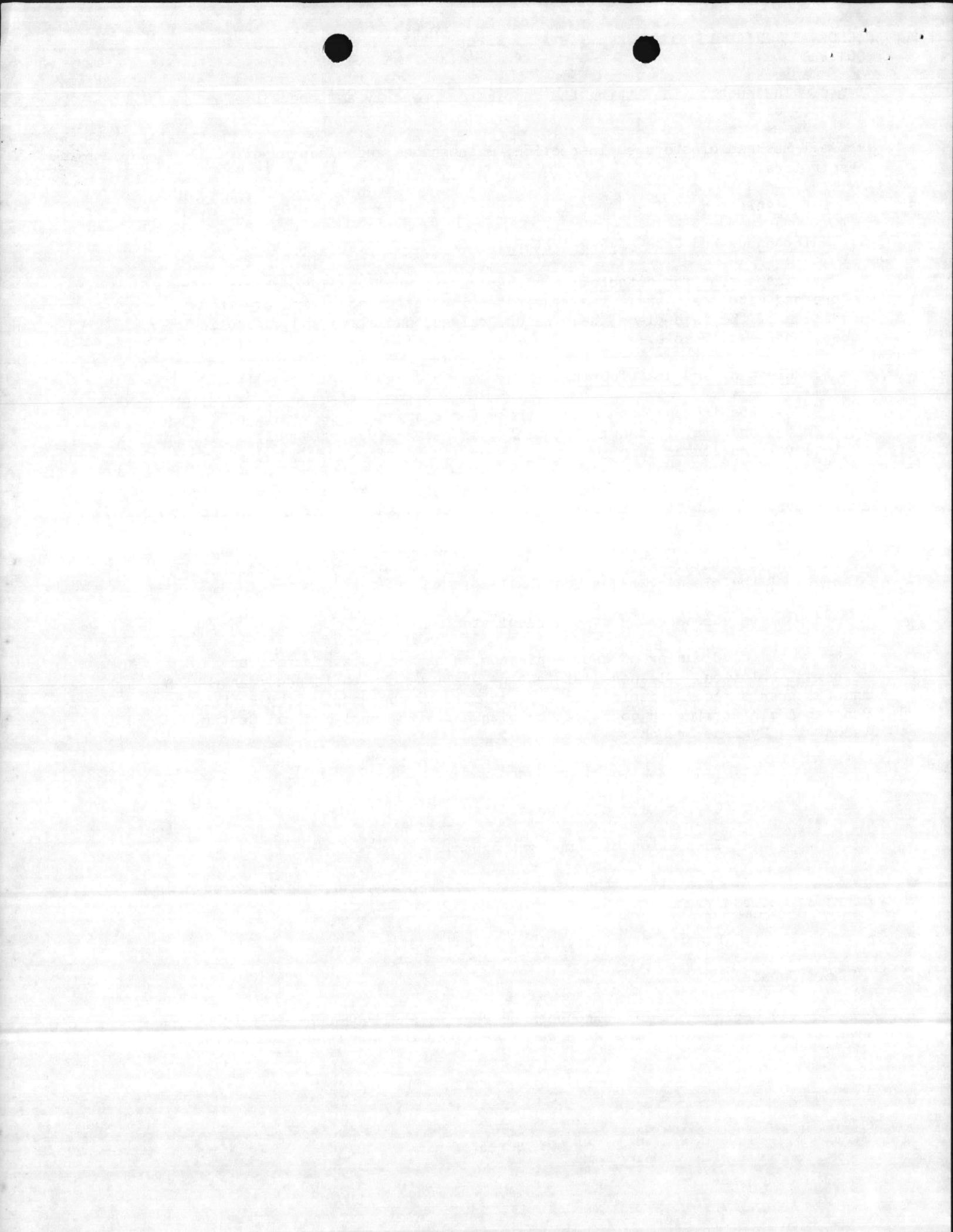
(e) Inspection of component parts.

(f) Assembly of the respirator and replacement with approved new parts as necessary.

(g) Placing respirator in a clean plastic bag.

c. Repair.

(1) Replacement of components or repairs shall be done only by trained, experienced persons with parts designed for the respirator.



(2) No attempt shall be made to replace components or to make adjustments or repairs beyond the manufacturer's recommendations.

d. Storage.

(1) Cleaned respirators shall be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture or damaging chemicals.

(2) Respirators shall be packed or stored so that the face-piece and exhalation valve will rest in a normal position and its function will not be impaired by setting in an abnormal position.

(3) Respirators shall be stored in a clean plastic bag, carton or carrying case, as appropriate. The area selected for storage shall not be exposed to dust, sunlight, extreme heat or cold, excessive moisture or damaging chemicals, or should not be in a location where the packing would be subjected to punctures.

6. Purchase.

a. All respirators purchased by the Naval Dental Clinic, Norfolk shall have NIOSH approval.

b. To ensure that all parts furnished are approved, i.e., they are identical to those in the original model, style and number, all replacement respirator component parts, filters and cartridges shall be purchased from the same manufacturer who supplied the original respirator.

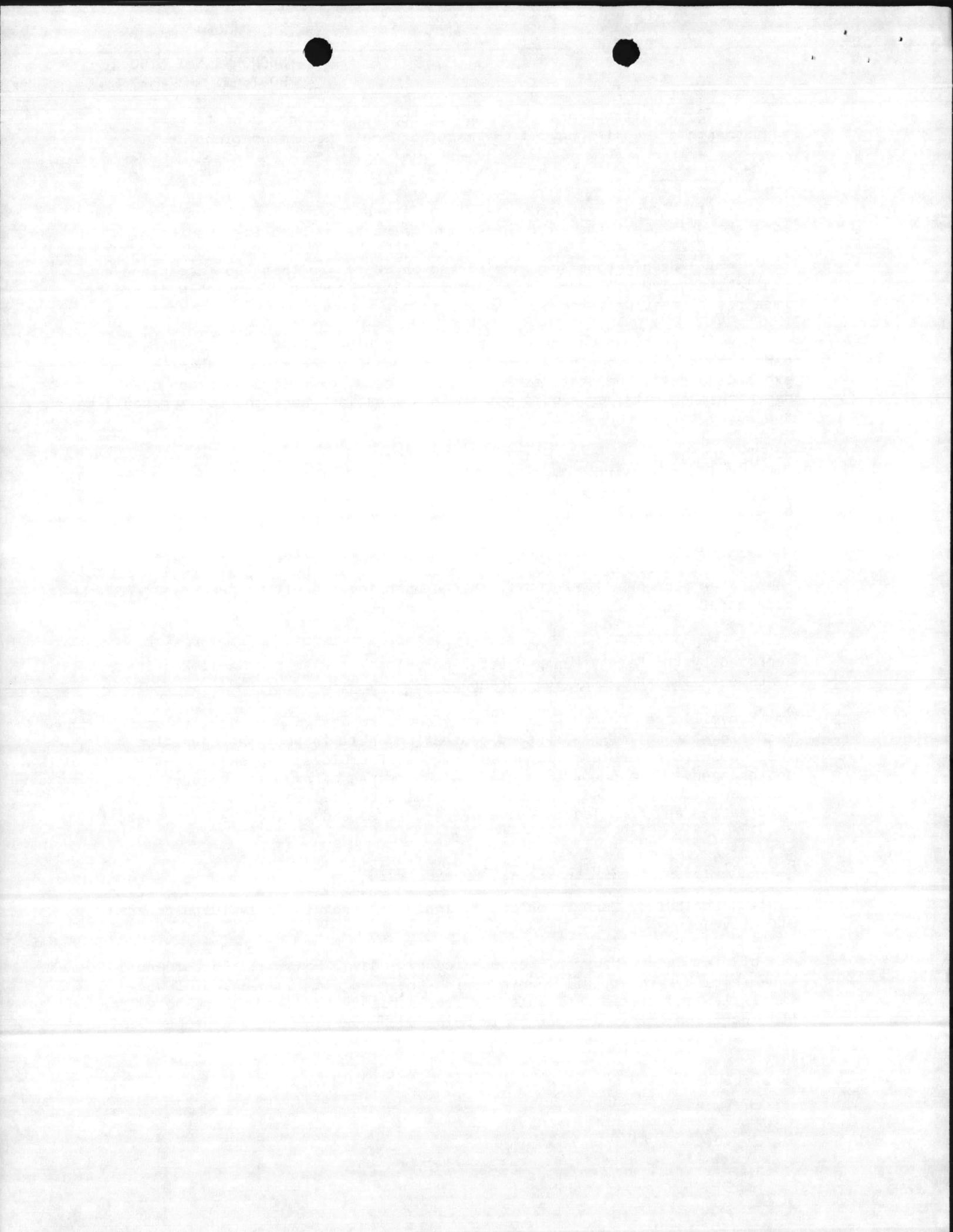
c. Respirators purchased for special projects or purposes shall be approved by the Safety Manager after consultation with the Naval Hospital, Portsmouth Industrial Hygiene Branch.

7. Surveillance of Work Area. Supervisors who assign personnel to operations requiring the use of respiratory protection shall inspect the operation frequently to ensure conditions and degree of employee exposure or stress have not changed. If a doubt exists as to the degree of exposure or adequacy of the respirator provided, the operation shall be stopped until appropriate information and consultation have been received and action has been taken to resolve the problem.

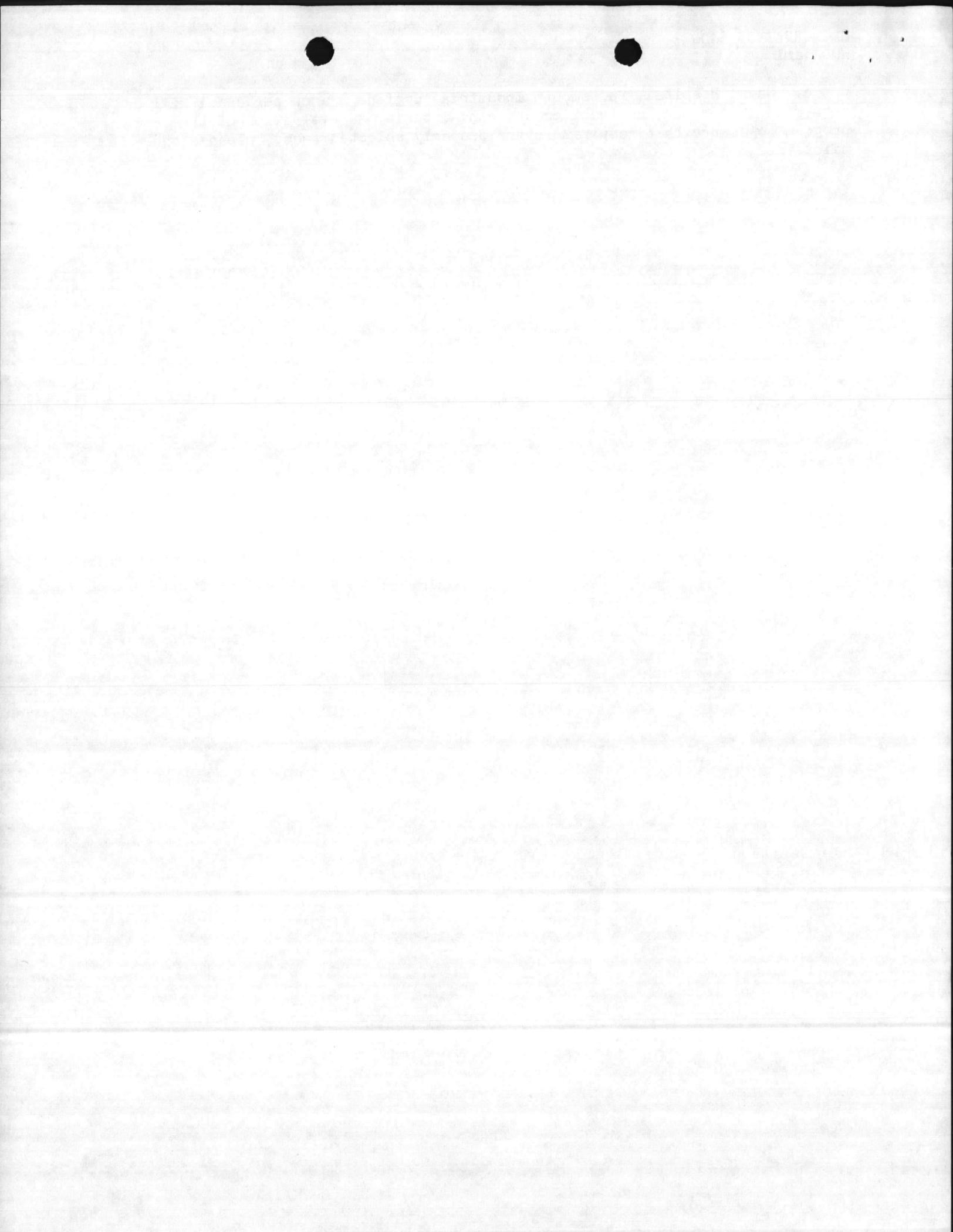
8. Evaluation of Respiratory Protection Program.

a. The Safety Manager or his designee will regularly evaluate program effectiveness.

b. The Safety Manager, accompanied by a Naval Hospital, Portsmouth Industrial Hygienist, will, note during their regular inspection of work facilities and operations, that the proper respirator has been selected for the operation involved, that it is being used correctly, and a proper sanitary area is provided for storage.



c. Naval Hospital, Portsmouth Industrial Hygiene Branch personnel will be requested to conduct, as least on a biennial basis, an evaluation of the program to assure that respirators are properly selected, used, cleaned and maintained.



APPENDIX 4I TO CHAPTER 4
FOOT PROTECTION

1. Requirement for Footwear.

a. All persons are required to wear shoes while on the property of Naval Dental Clinic, Norfolk. Bare feet cause unnecessary exposure to the hazards peculiar to health care environments such as infectious matter, sharp items, temperature extremes and caustic or toxic substances.

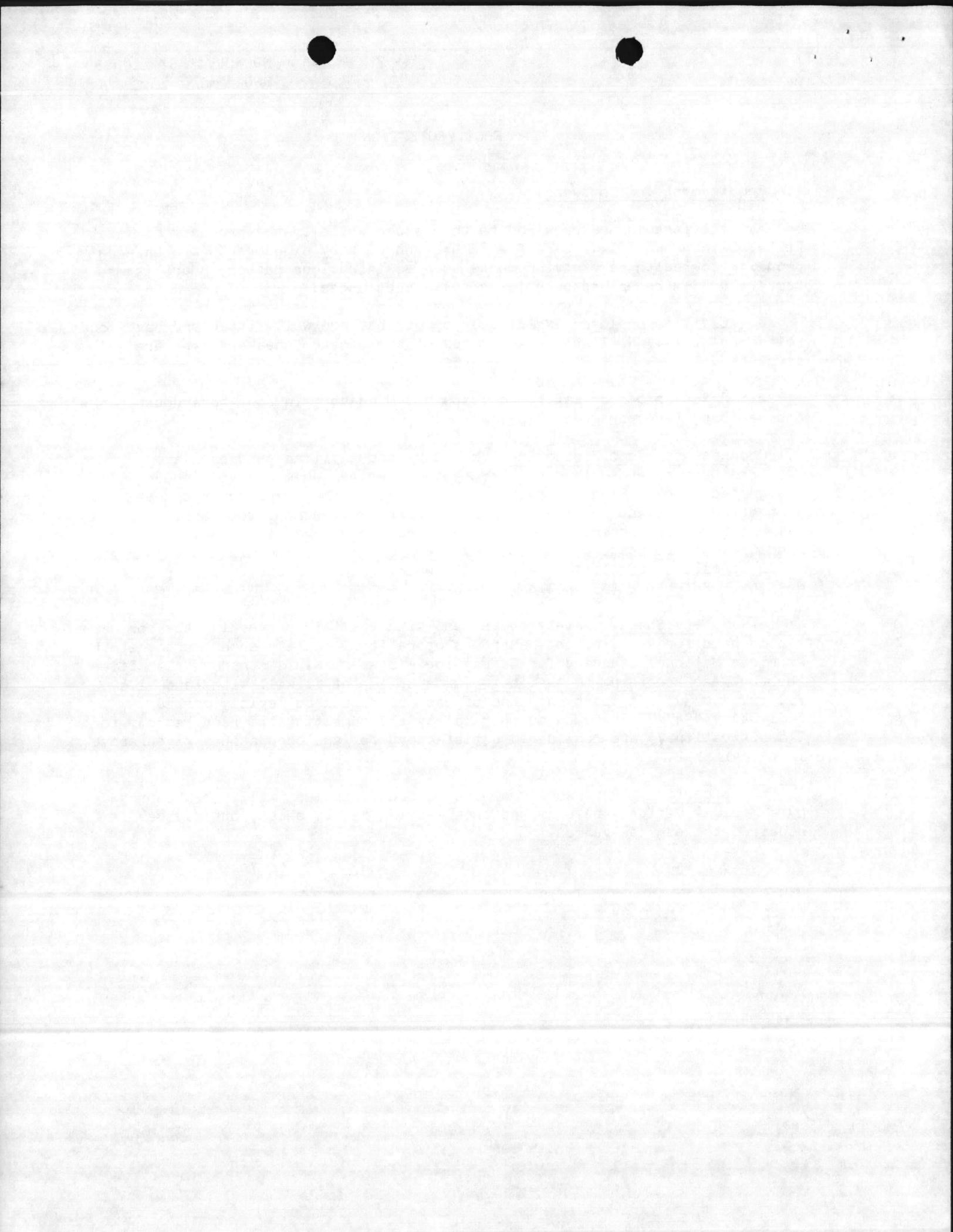
b. Civilian employees shall wear shoes that are well-fitted and have good soles and heels. No light-weight shoes of the canvas "sneaker" type are permitted.

c. Safety shoes or safety toe caps are mandatory in foot-hazardous occupations, (see paragraph 2 below).

2. Occupational Foot Protection. Military and civilian personnel are required to wear prescribed foot protective devices when engaged in operations designated below. Each supervisor is responsible for assuring that toe protection equipment or safety shoes are worn by personnel when assigned to a toe-hazardous occupation. All employees who are engaged in materials handling, transportation, warehousing, packaging, dental equipment repair and other operations of similar nature will wear prescribed safety foot protective devices. Reference (a) applies.

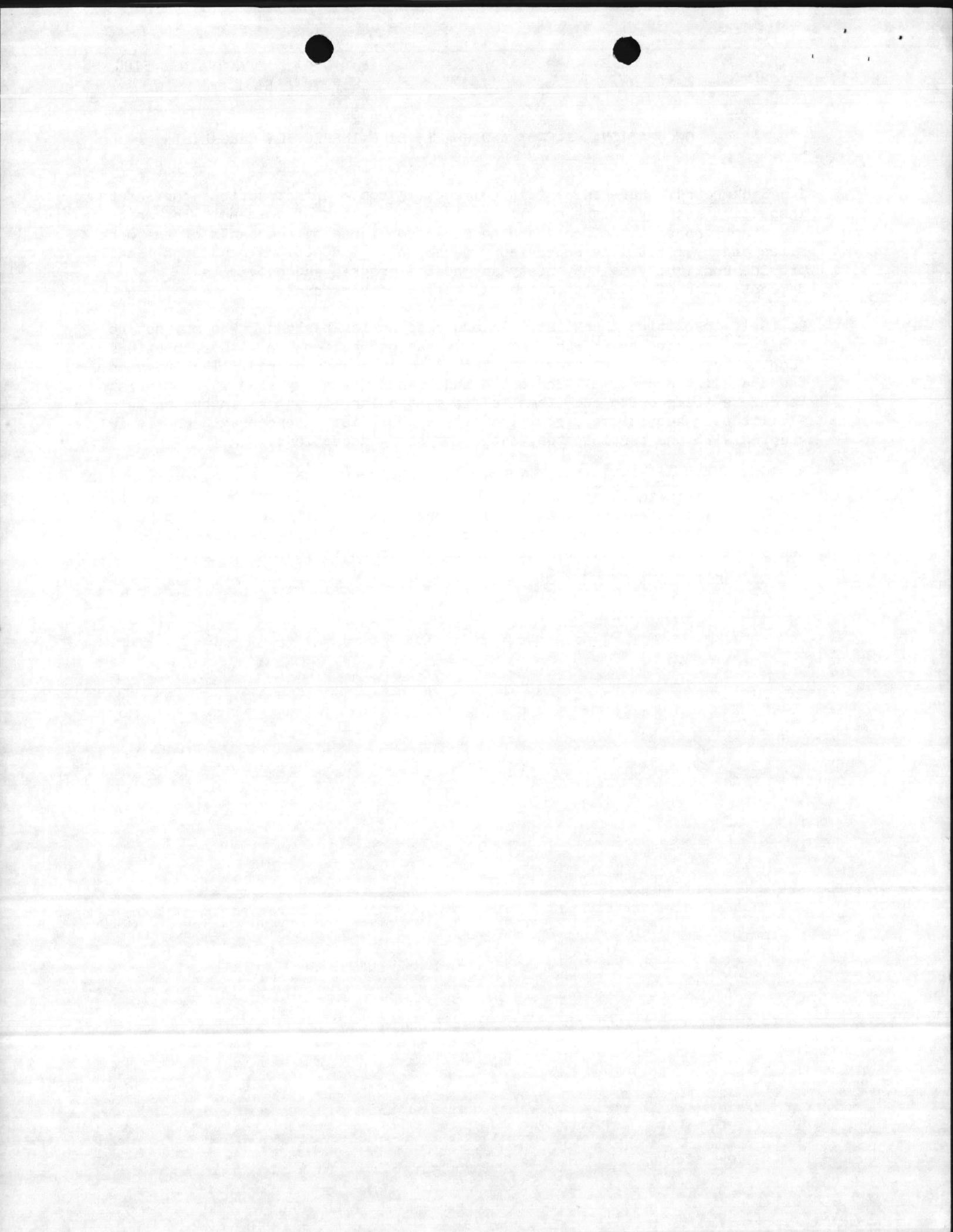
a. Safety Shoes. Safety toe shoes, with built-in protective toe box, are recommended for wear in foot-hazardous operations. Safety shoes must meet the American National Standard for Safety-Toe Footwear. This standard classifies the footwear according to the foot-pounds of impact it will withstand, i.e., 75, 50, and 30. At least one shoe of each pair will be legibly marked ANSI-Z41.1-1967/75 inasmuch as only safety shoes meeting the requirements for Classification 75 are considered satisfactory for the occupations given above in paragraph 2.

b. Exception. Personnel who have foot deformities, will, when approved by a Medical Officer, be exempted from wearing safety shoes, but may be required to wear toe guards.



APPENDIX 4J TO CHAPTER 4
OCCUPATIONAL SAFETY AND HEALTH SELF-INSPECTION CHECKLIST

1. Background. References (a), (b) and (1) contain instructions for safety inspections and oversight on all levels in the chain of command. The most important inspection efforts are those accomplished by occupants of the work sites and by first-line supervisory personnel. Inspections conducted locally provide continuity to the safety and health program and provide a demonstration of interest in the well-being of personnel.
2. Self-inspection checklist. In order to assist personnel who may not be familiar with the broad range of safety and occupational health regulations adopted by the Navy, a checklist, tab (1), has been prepared. The items on the checklist are not all-inclusive and Branch Heads may find it appropriate to delete items or to add items to fit particular situations in branch facilities. Accordingly, revision of the checklist is encouraged and is in keeping with the participatory nature of self-inspections.
3. Frequency of Inspections. It is understood that some conditions are inspected daily and that some equipment is inspected each time it is used. The checklist given in tab (1) is a reporting form; it is designed to be completed monthly. Forward completed checklists to Naval Dental Clinic Headquarters (Code HQ01) by the 10th of the month following the month in which the inspection was conducted.



NAVAL DENTAL CLINIC
NORFOLK, VIRGINIA

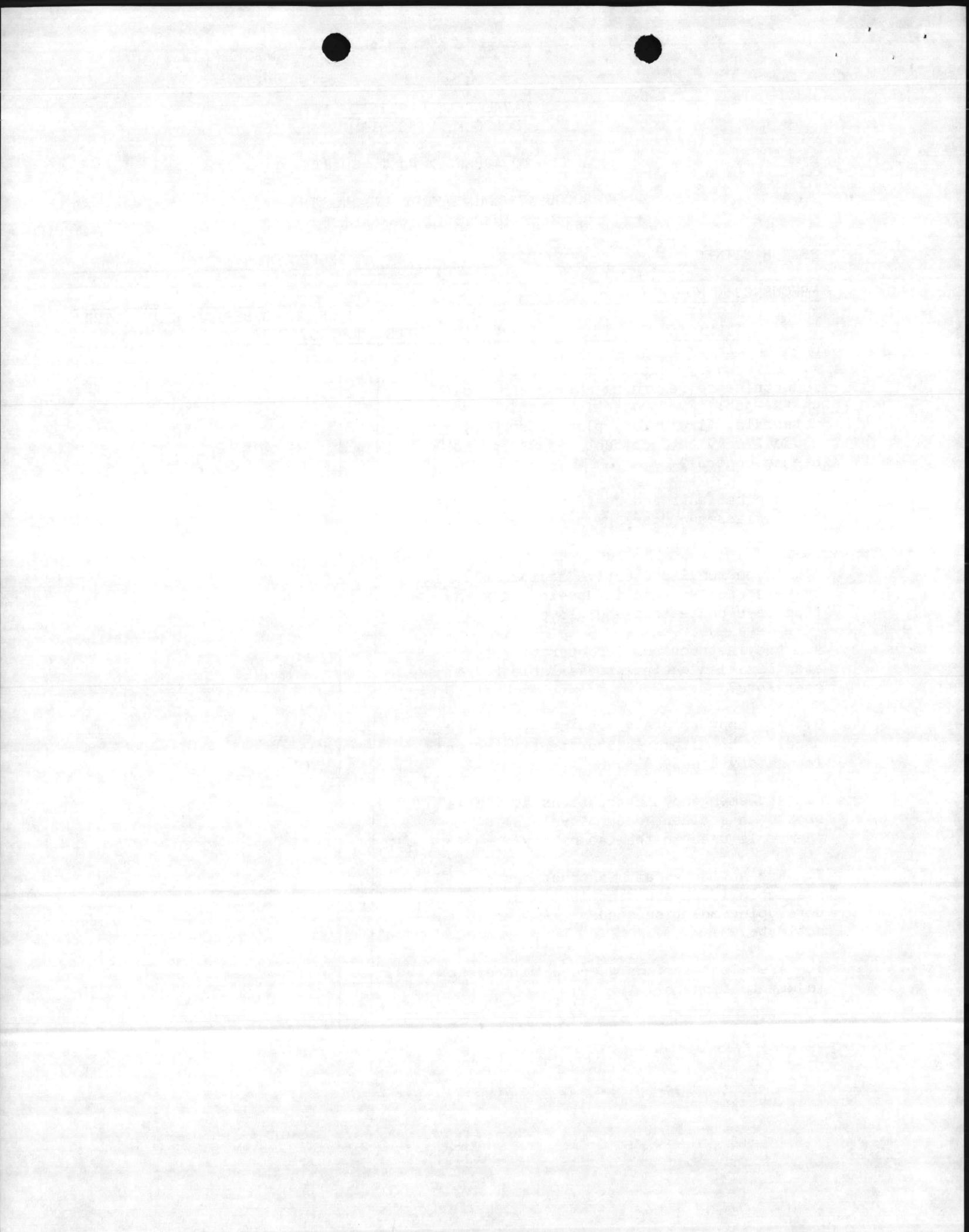
TAB (1) TO APPENDIX 4J TO CHAPTER 4

OCCUPATIONAL SAFETY AND HEALTH
SELF-INSPECTION CHECKLIST

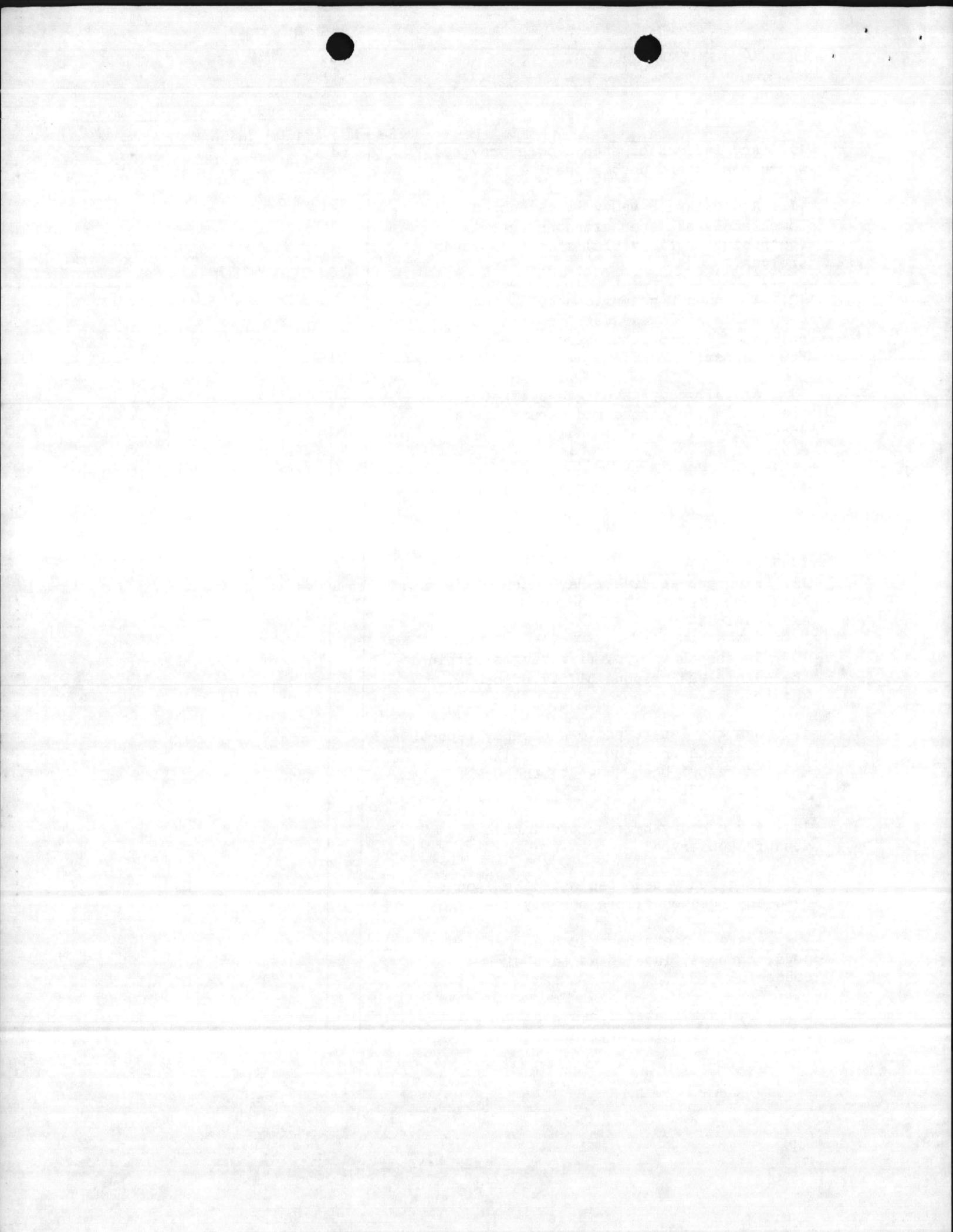
BRANCH CLINIC _____ DATE _____ INSPECTOR _____

FREQUENCY: MONTHLY

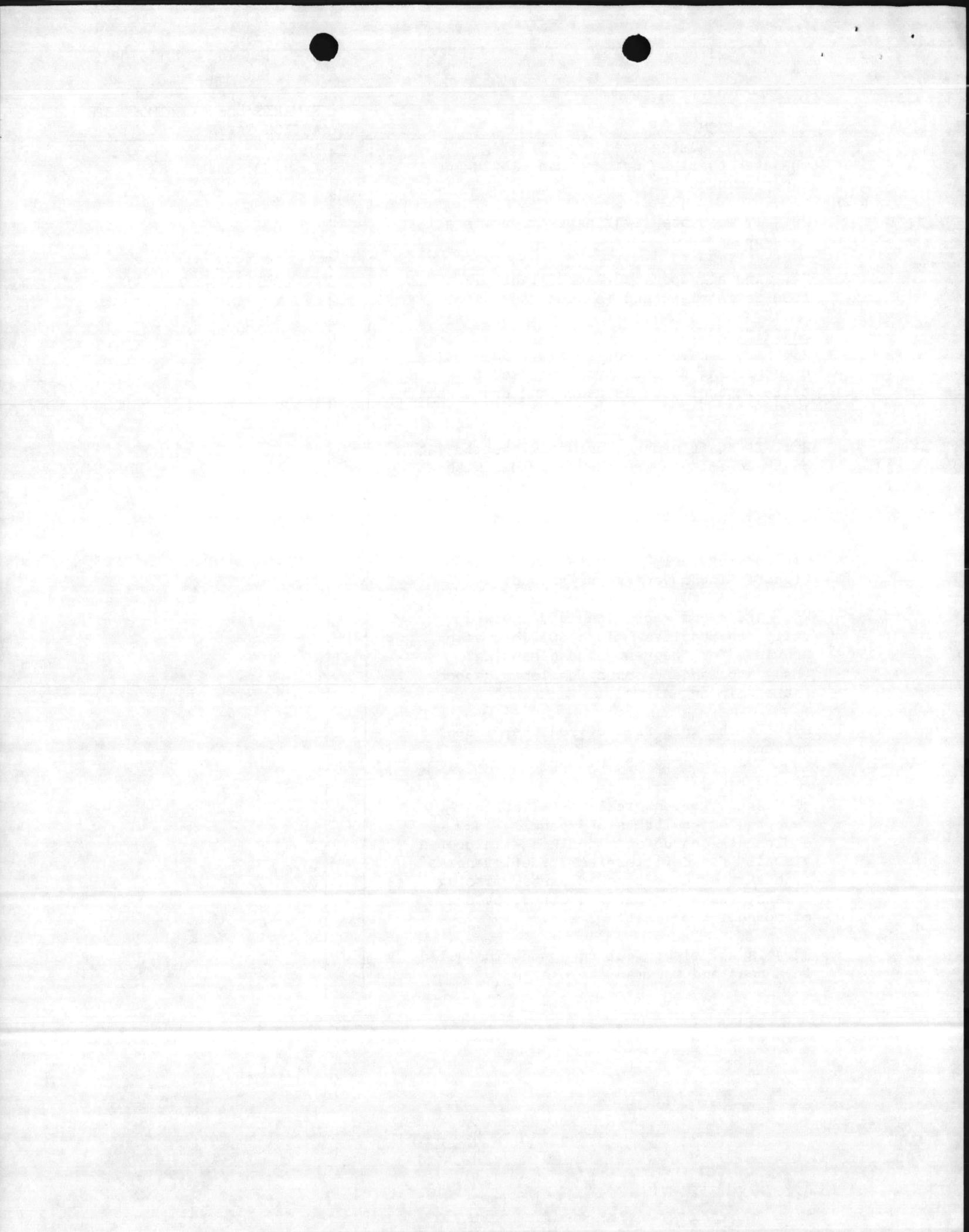
ITEM	REMARKS/DEFICIENCIES NOTED/ ACTION TAKEN	
	YES	NO
<u>GENERAL SAFETY</u>		
1. Have newly-joined personnel been indoctrinated regarding safety and health on-the-job: Eye protection, hazardous materials, fire safety plan, emergency medical service, accident reporting and needle control?		
2. Are patients and staff advised to wear their glasses and are glasses provided for eye protection?		
3. Is personal protective equipment worn by personnel engaged in developing x-ray film (eye protection and gloves)?		
4. Are instructions for operating sterilization equipment available to operators?		
5. Are appropriate gloves available for handling hot items in the sterilizing and laboratory areas?		
6. Are emergency instructions available should an accident occur involving chemicals used in the laboratory?		
7. Are antidotes and instructions available if an accident involving developing solution occurs? (water is the antidote)		
8. Are electric fans guarded to prevent injury to fingers?		
9. Is good housekeeping maintained in storage areas?		



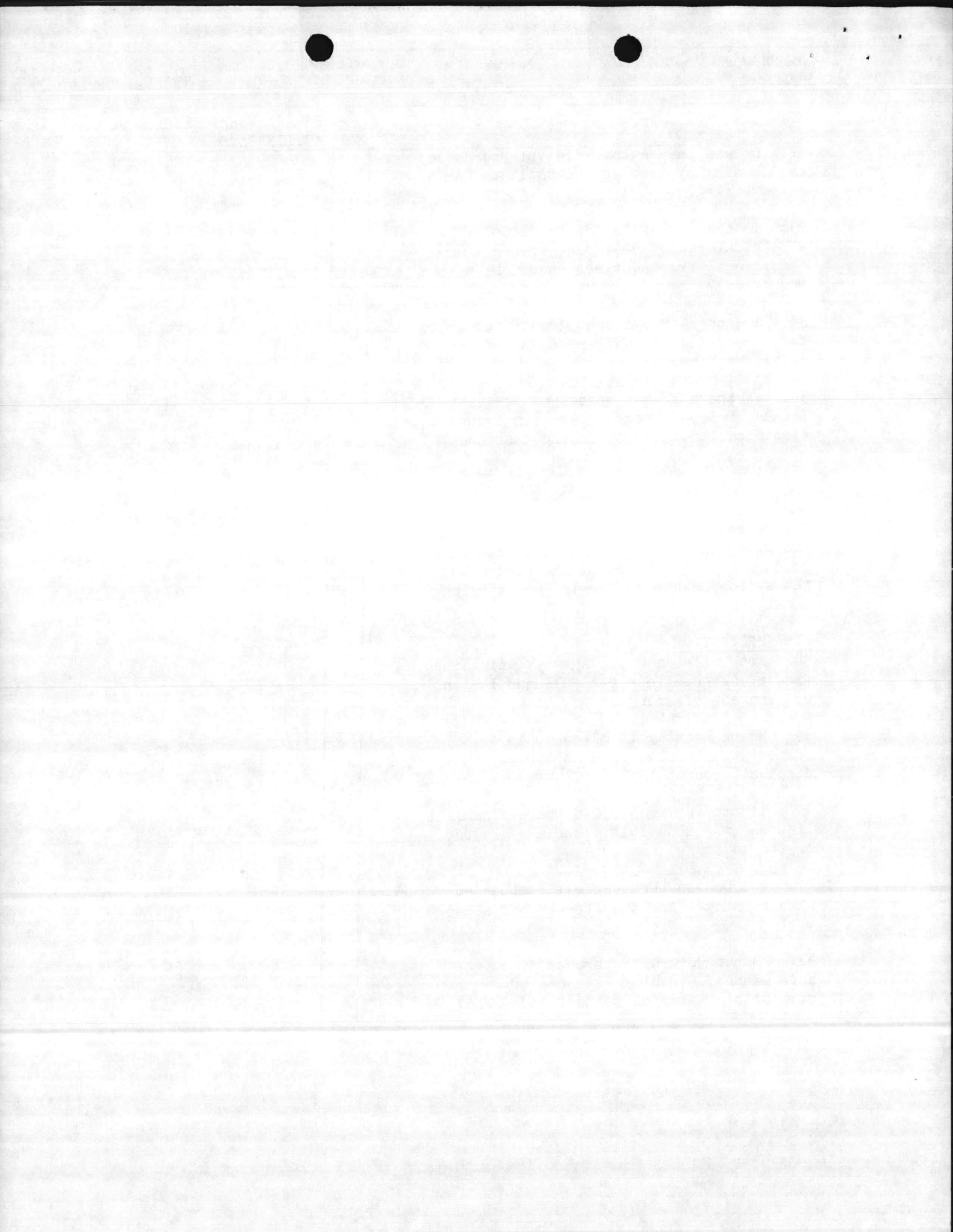
ITEM	REMARKS/DEFICIENCIES NOTED/ ACTION TAKEN	
	YES	NO
10. Are ladders or step stools provided where needed and used properly?		
11. Are bulky or heavy items stored on lower shelves? Are hazardous material (corrosive or flammable) stored on lower shelves?		
12. Are used hypodermic needles and disposable syringes destroyed and then collected in a puncture-proof container for disposal?		
13. Are all compressed gas cylinders that are not in use capped and secured in a vertical position by a chain or other device?		
14. Has the NDC Safety Manager been notified of injuries or property damage occurring since the last self-inspection?		
<u>INDUSTRIAL HYGIENE</u>		
15. Have prospective x-ray technicians been scheduled for preplacement physical examinations?		
16. Is the control of film badges within the clinic the responsibility of one knowledgeable person?		
17. Has the latest photo-dosimetry report been received from the Medical Clinic? Has the report been shown to the Oral Diagnosis Officer?		
18. Are mercury hygiene preventive measures observed?		
19. Is mercury decontaminate (HgX) on hand and used on floors monthly?		
20. Are all containers such as bottles, jugs, carboys, labeled as to their contents?		
21. Is contaminated linen kept separated from that which is not contaminated?		



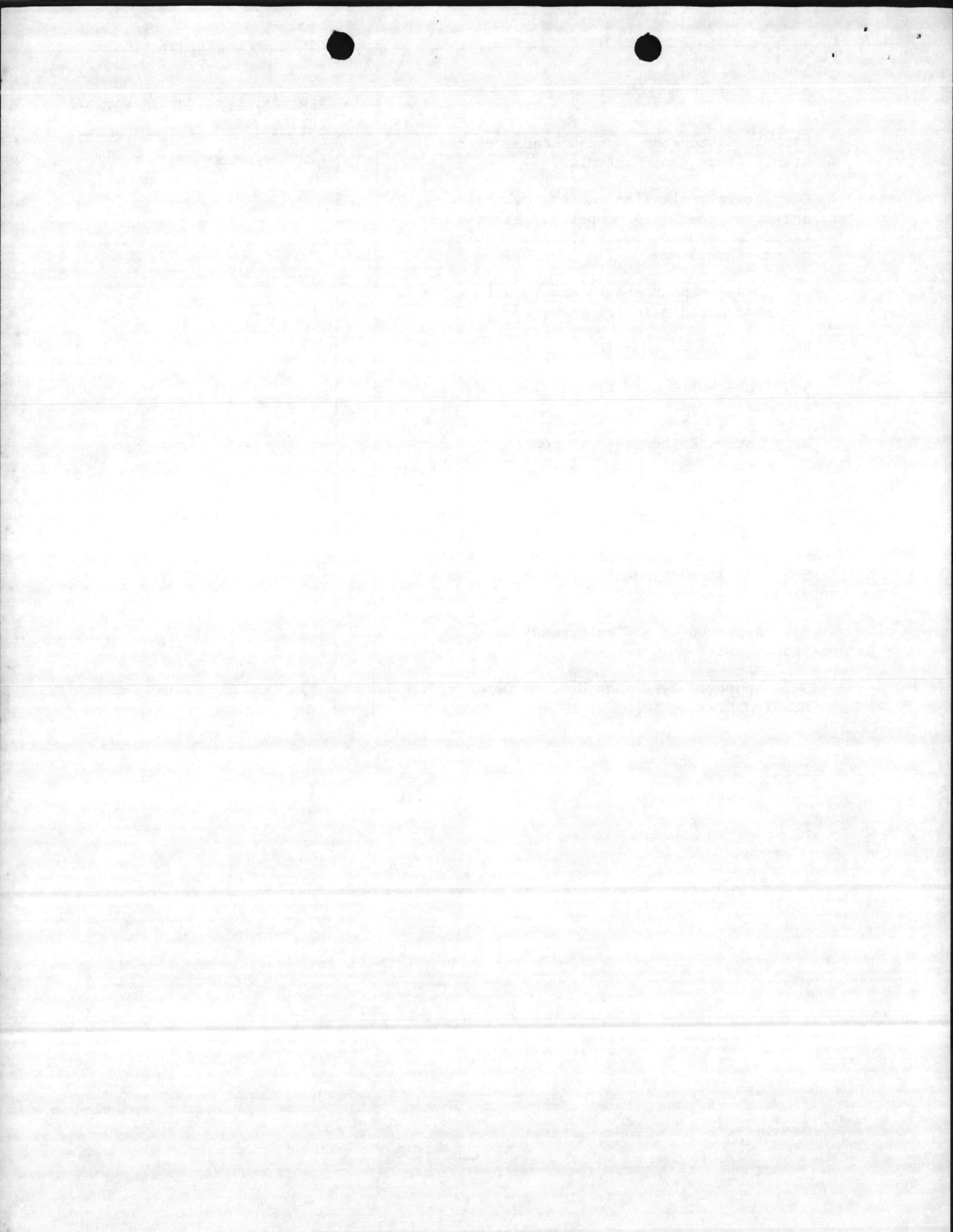
ITEM	YES	NO	REMARKS/DEFICIENCIES NOTED/ ACTION TAKEN
22. Is vacuuming used for cleaning wherever possible rather than blowing or sweeping dust?			
23. Is adequate lighting provided in all work areas?			
24. Are all operatory work light plastic shields in place and in good condition?			
<u>SANITATION</u>			
25. Are personnel prohibited from storing or consuming food in areas exposed to toxic matter, such as heads and prosthetic lab?			
26. If staff members are permitted to eat on the premises, are they provided with a suitable place for that purpose?			
27. Are waste disposal containers provided in lunch room areas? Are they emptied regularly? Do they have tightfitting covers where needed?			
28. Are heads kept clean and checked daily for supplies? Is a suitable soap provided for frequent hand cleansing? (Many appliances worn by patients harbor pathogenic organisms)			
29. Is the area free of rodents, insects or vermin?			
<u>ELECTRICAL</u>			
30. Are all electrical installations - receptacles, switches and panels - and equipment - cords and machines - inspected visually for deficiencies? (deficiencies such as broken or cracked parts, missing covers, frayed or patched cords, evidence of scorching or melting, etc.)			
31. Is all electrical equipment installed in a neat and workmanlike manner?			



ITEM	YES	NO	REMARKS/DEFICIENCIES NOTED/ ACTION TAKEN
32. Do you insure that flexible cords and cables are not used as a substitute for fixed wiring?			
33. Is the use of "spider" multiple electrical receptacles discouraged (additional fixed outlets should be requested)?			
34. Are breaker switches identified as to their use (lights, wall receptacles, autoclave, etc.)?			
35. Is there access space, of at least 30 inches, free of stored items, in front of electrical breaker panels and disconnects?			
36. Are all required grounds provided on power tools and extension cords?			
37. Floor Buffers: Are electrical cords and plugs in good condition? Is the grounding pin in place on the plug? Is the switch on the buffer in good working condition?			
<u>FIRE PROTECTION</u>			
38. Are aisles and passageways maintained free of obstructions for full and instant use in case of emergency?			
39. Where smoking is allowed, is it properly controlled with ash trays and disposal receptacles?			
40. Is smoking prohibited where flammable liquids or combustible materials are used or stored?			
41. Are Bunsen burners left unattended when burning? Are they turned off after use?			
42. Is hot work with torches done in a safe manner, avoiding exposure of combustible material to heat and flame?			



ITEM	YES	NO	REMARKS/DEFICIENCIES NOTED/ ACTION TAKEN
43. Are laboratory work benches covered with a flame proof material?			
44. Are all alkalies, acids, solvents, and other chemicals compatibly stored? (Acids should not be in the same cabinet as solvents.)			
COFFEE MESSSES should comply with recognized safe practices:			
45. On a non-combustible surface?			
46. Three-wire cord for metal coffee makers?			
47. Internal thermostatic control?			
48. Indicator light to show when coffee pot is "ON"?			
49. Not connected to an electrical timer?			
50. Not in a "hidden" location such as a cleaning gear locker?			
51. Approved by a fire prevention inspector?			
52. Approved by Branch Head or Department Head?			



APPENDIX 4K TO CHAPTER 4
FIRE PREVENTION

1. Policy. A fire prevention program, conducted in accordance with this instruction, shall be developed for every Branch Dental Clinic. The scope of each program shall be commensurate with the size and degree of hazard of the Branch. Branch Clinics shall also comply with the fire bill of the host command which is tasked with the responsibility to provide fire protection services. Reference (m) applies.

2. Fire Safety System. The Naval Dental Clinic fire safety system incorporates the following basic components.

a. Prevention and minimization of fires, including limitation of combustibles within the structures in finishes, furnishings and stored material.

b. Early detection and prompt extinguishment of fires.

c. Containment of fires and control of combustion products by compartmentation.

d. Relocation and escape procedures and facilities.

3. Fire Prevention Responsibilities:

a. Each member of the Naval Dental Clinic will maintain good housekeeping in his/her work area so that combustible material will not be permitted to accumulate, thus presenting a fire hazard. Bunsen burners, matches (safety matches only) and other open flame devices will be used with great care.

b. A fire extinguisher shall be kept in readiness during work involving the use of soldering irons, blow torches, arc-welding equipment, Bunsen burners and other open flame devices.

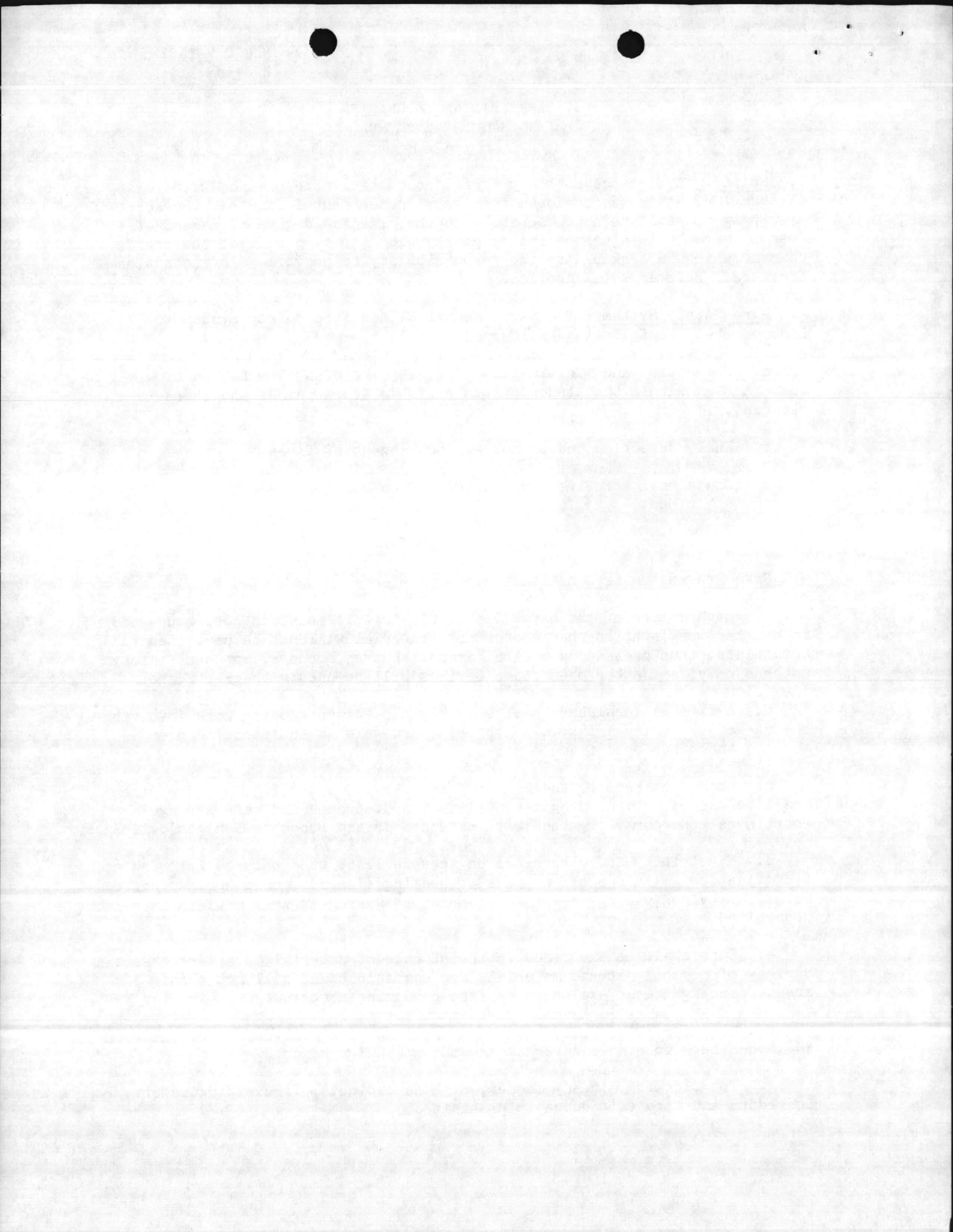
c. When jobs require the use of flammable gases and liquids, due care shall be exercised including the utilization of proper and safe storage containers and rooms, together with safe stands and supports for gas cylinders.

d. Electricity and electrical devices shall be used only as intended and improvisation will be avoided. Use of heating elements, unauthorized coffee pots, improvised wiring, as well as "octopus" wiring in wall outlets is prohibited.

e. Care shall be exercised in the storage of material to assure that the variety of commonly stored materials are compatible and will not create a spontaneous ignition, explosion or fire producing reaction.

f. Fire sprinkler heads will be maintained with a clearance distance of 18 inches between stored material and the sprinkler heads.

g. The blocking, in any manner, of hose cabinets, fire extinguishers, corridors and fire exit doors is prohibited.



h. Use of portable heating devices is prohibited.

i. Coffee makers, hot plates and similar devices shall be located with adequate clearances from combustibles and shall not be operated in storage rooms, closets or other out-of-sight places. Automatic timers shall not be used to control power supply to these devices.

j. The use of open flame lighting devices such as oil lamps and candles is prohibited. Open flame portable cooking and food-warming devices such as tank gas-fired grills, solid fuel cans and candles are prohibited.

k. Charcoal fired grills are prohibited within structures.

4. Gasoline. Containers of gasoline shall not be carried within the trunk of any government vehicle or of any privately owned vehicle when on station.

5. Outdoor hazards:

a. No flammable or combustible liquids shall be disposed of by dumping into bodies of water, drains of sewers or onto the ground. Containers of such liquid shall not be disposed of into dumpsters or other trash receptacles.

6. Access. The placement of vehicles, equipment or any items which impede or unreasonably delay the utilization of fire hydrants, hoses, alarm boxes and hose connections is prohibited. Parking regulations shall provide for passage of fire apparatus for access to structures and water connections.

7. Welding and burning. A written permit system including fire watch requirements shall be established by the Repair Division.

8. Smoking:

a. Smoking is prohibited in the following:

(1) Storage - warehouses, storage rooms

(2) Elevators

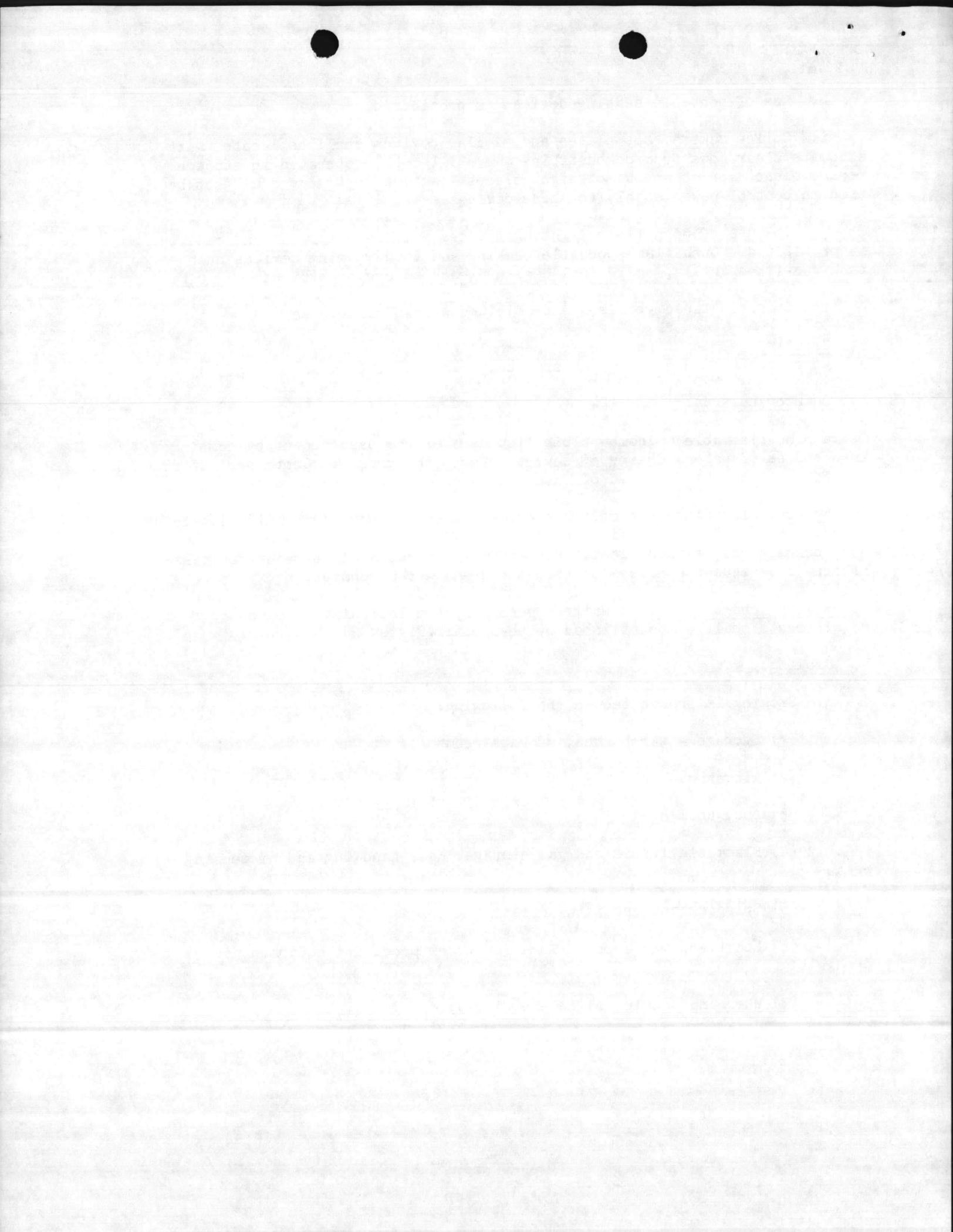
(3) Duty Room bunks

(4) Flammable liquid and gas storage, use, handling and dispensing areas

(5) Shipping and receiving areas

(6) Locations where open flames or spark producing equipment is prohibited

(7) Where no smoking signs are displayed



(8) Where prohibited by other DOD/Navy/NDC instructions

(9) Areas where local command determines a hazard exists

b. Designated: Specific locations within selected prohibited areas may be designated for smoking. Such areas shall be clearly defined and posted. Adequate numbers and type of receptacles for discarded smoking materials shall be provided and housekeeping shall be maintained at a high standard. Trash receptacles shall have self-closing covers or extinguishing type covers.

9. Fire bills shall be developed and posted for each occupied building. The Fire Protocol must include the following:

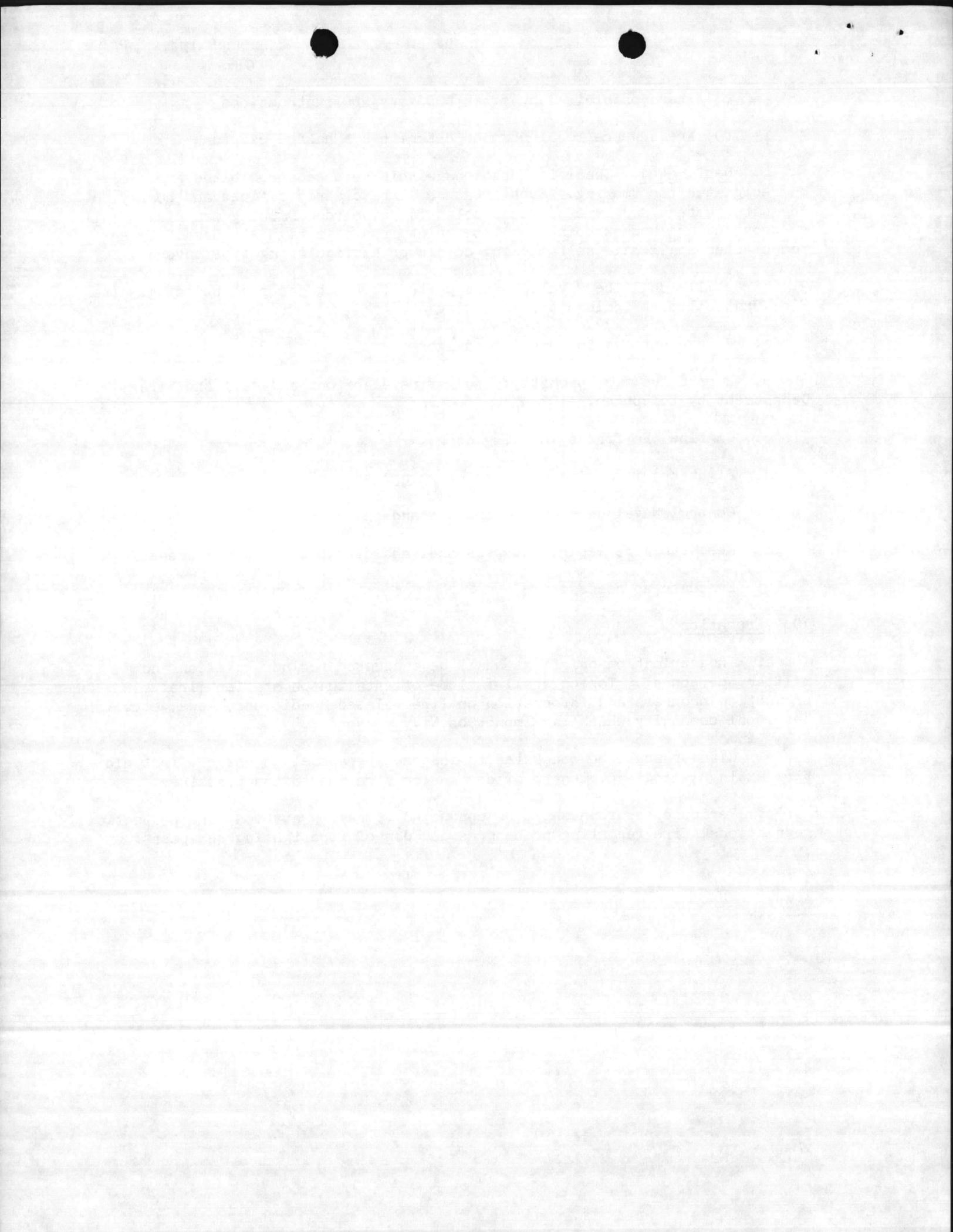
- a. Rescue persons in immediate danger.
- b. Report the fire promptly: pull fire alarm box and call the Fire Department by telephone.
- c. Confine the fire by closing doors.
- d. Fight the fire with the proper extinguisher.
- e. Control Naval personnel, visitors and patients.
- f. Meet the Fire Department personnel and direct them to the scene.
- g. Evacuate as necessary.

10. Education.

a. Indoctrination briefings shall be conducted for new civilian and military personnel. Topics shall include orientation on station fire protection programs and information on fire related conditions, laws, etc., of the local community which may impact on Navy personnel.

b. Classes shall be conducted to instruct personnel on use of first aid fire extinguishing equipment provided and on fire prevention practices.

c. Periodic sessions shall be conducted to review station fire protection regulations, fire reporting procedures and use of firefighting equipment.



APPENDIX 4L TO CHAPTER 4
HAZARDOUS MATERIAL SAFETY PROGRAM

1. Background. Many materials in use at Naval Dental Clinic, Norfolk are toxic, corrosive, flammable or chemically reactive. Improper storage, use or disposal of hazardous materials may lead to accidents and injuries to personnel. The Navy and the Department of Labor have developed regulations for the control of hazardous materials. Naval Dental Clinic, Norfolk is also subject to the strict controls required by the State of Virginia, especially with regard to disposal of hazardous waste.

2. Scope. This appendix applies to the purchasing, storage, handling, use and disposal of hazardous materials. This includes materials used in the preparation of dental prostheses. Excluded are medical and pharmaceutical supplies for the practice of dentistry. Handling of compressed gas cylinders is covered in Appendix 4C.

3. Policy. Precautions shall be taken by all personnel for the safe control of hazardous materials commencing with receipt of material until disposal of spent material and containers.

4. Responsibilities.

a. Safety Manager.

(1) Maintain a Limited Access file of Material Safety Data Sheets (MSDS) containing vendors, manufacturers proprietary information. Material Safety Data Sheets (MSDS) will be available on a Limited Access or "Need to know Basis".

(2) Assist the Supply Officer with correct classification of materials not appearing on classification lists.

(3) When requested, assist Branches and Departments in the training and indoctrination of personnel handling hazardous material and procedures to be followed to avoid injury or property loss.

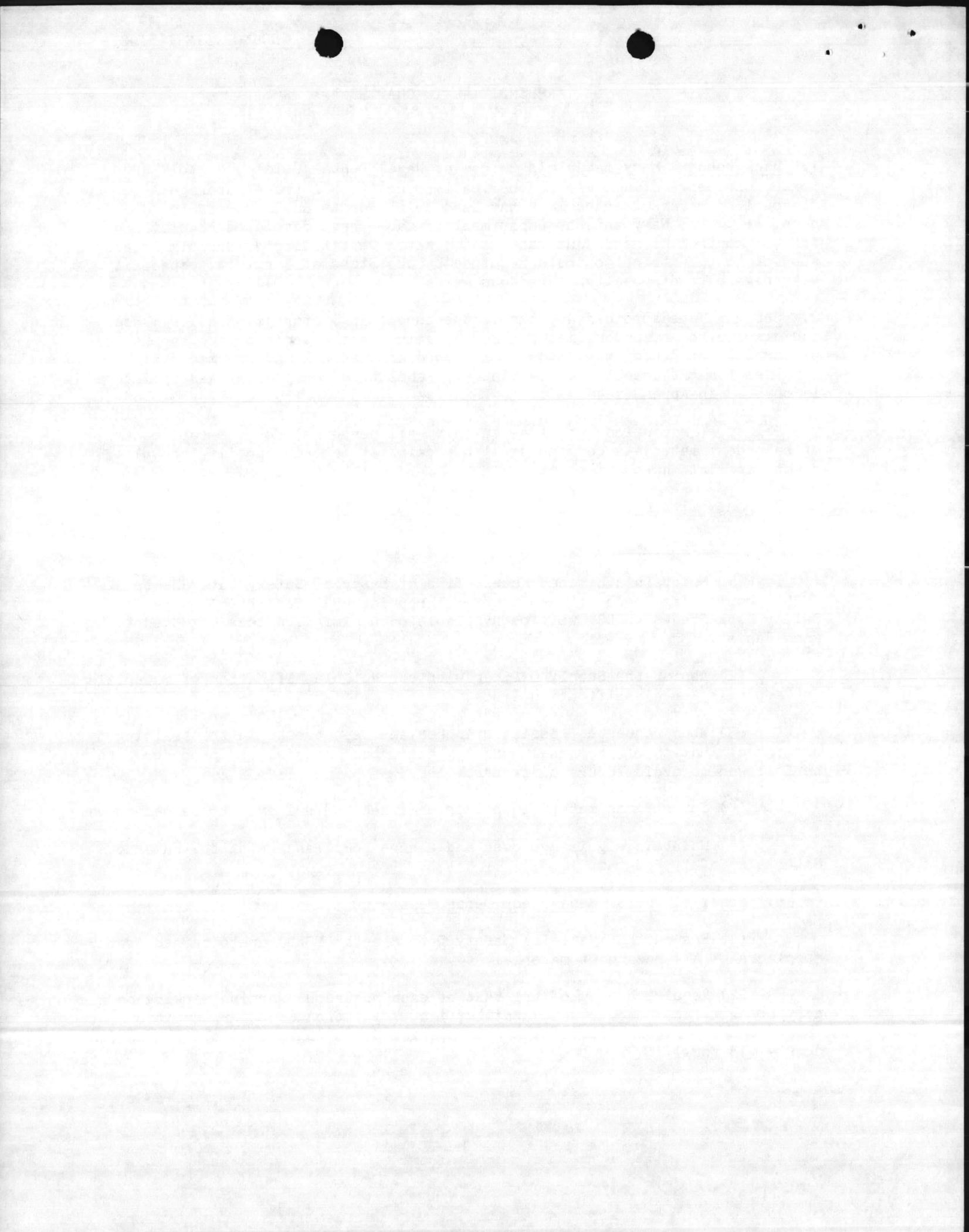
(4) Investigate material that is unmarked and believed to be hazardous.

(5) Maintain cognizance over and ensure compliance with the Hazardous Materials Safety Program.

b. Head, Financial Management Department.

(1) Ensure that Material Safety Data Sheets (MSDS) are obtained from suppliers of all hazardous material.

(2) Require a copy of the text of each hazardous warning marking or a copy of each label required by statute, law, regulation or other conditions of the contract to be submitted with the Material Safety Data Sheets (OSHA-20 form or DD-1813 form).



(3) Ensure that hazardous material under his cognizance is stored and handled in accordance with NAVSUP PUB 284 (Storage and Materials Handling).

(4) Distribute completed copies of Material Safety Data Sheets to the Safety Manager.

(5) Ensure that storage bins, racks, etc., used to store hazardous materials under his cognizance and properly marked with the hazard classification of the items.

(6) Maintain an adequate supply of all warning labels.

(7) Contact the Safety Manager or the Hazardous Material Control Committee if unable to determine the proper label or classification for a particular chemical or material. When deemed necessary, contact higher authority (Fleet Material Support Officer or NAVMEDCOM) for assistance in determining classification codes.

(8) Ensure hazardous material containers are labeled when received according to their hazard, prior to being placed in storage and before being issued to Naval Dental Clinic personnel.

(9) Request manufacturers to identify the hazardous nature of material when purchased directly from commercial sources and maintain a tickler file of such actions.

(10) Ensure that all interior containers are labeled when removed from the shipping container for storage.

(11) Ensure storage of hazardous material under his cognizance is in approved safety storage lockers.

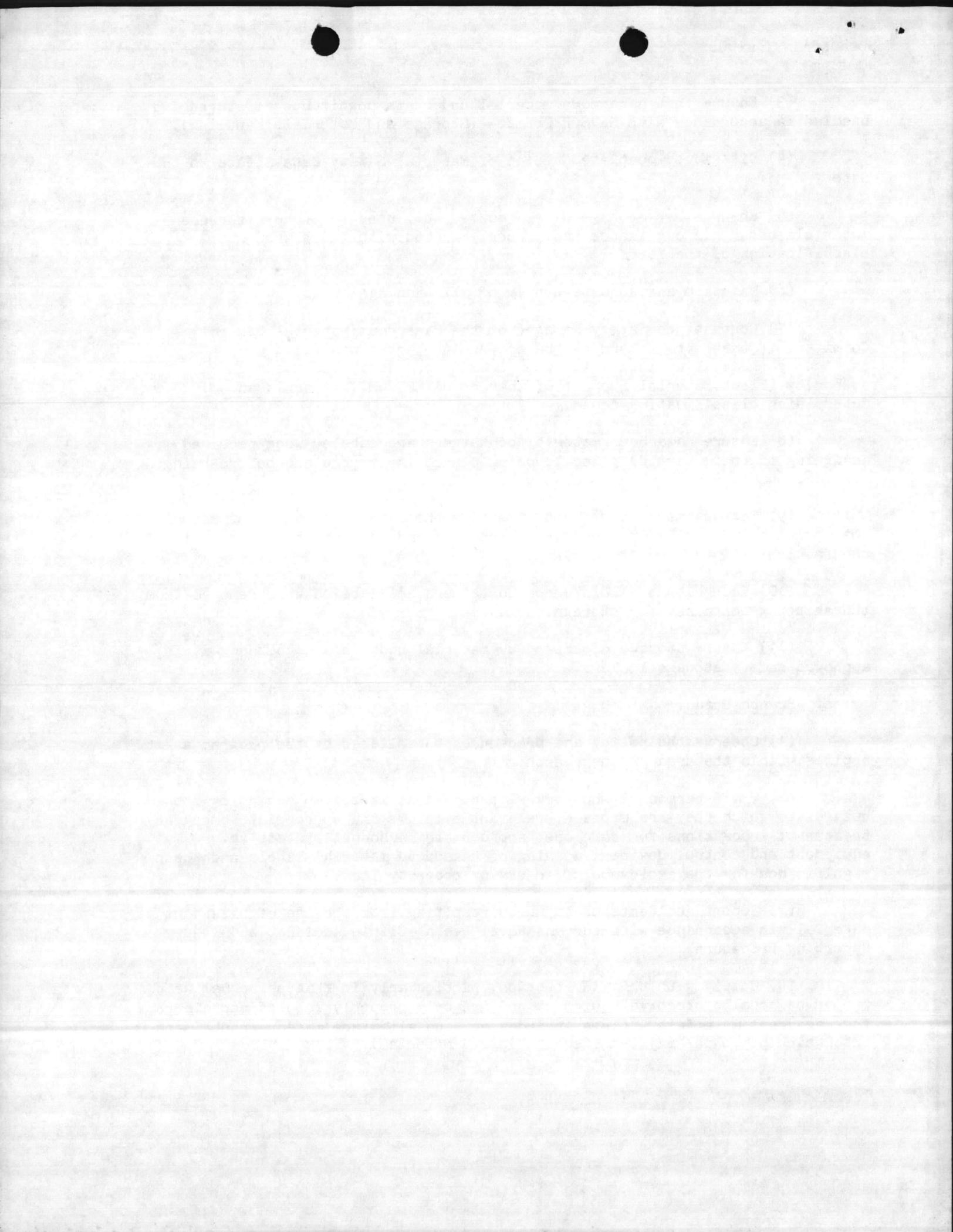
c. Branch Heads.

(1) Observe the policy and procedures established by the program as it applies within the area of their authority.

(2) Train personnel who work with hazardous materials regarding the hazards to which they are exposed, relevant symptoms and appropriate emergency treatment; precautions for safe use; appropriate personnel protective equipment and control devices; meaning of hazardous material labels and their significance for the avoidance of injury or property loss.

(3) Report accidents or injuries resulting from the use of hazardous material, in accordance with current Naval Dental Clinic Accident and Injury Reporting Procedures.

(4) Comply with this instruction, particularly in that personnel wear proper personal protective equipment and use only properly labeled containers for hazardous materials. (This includes any and all miscellaneous containers into which personnel may transfer the issued material).



d. Supervisors.

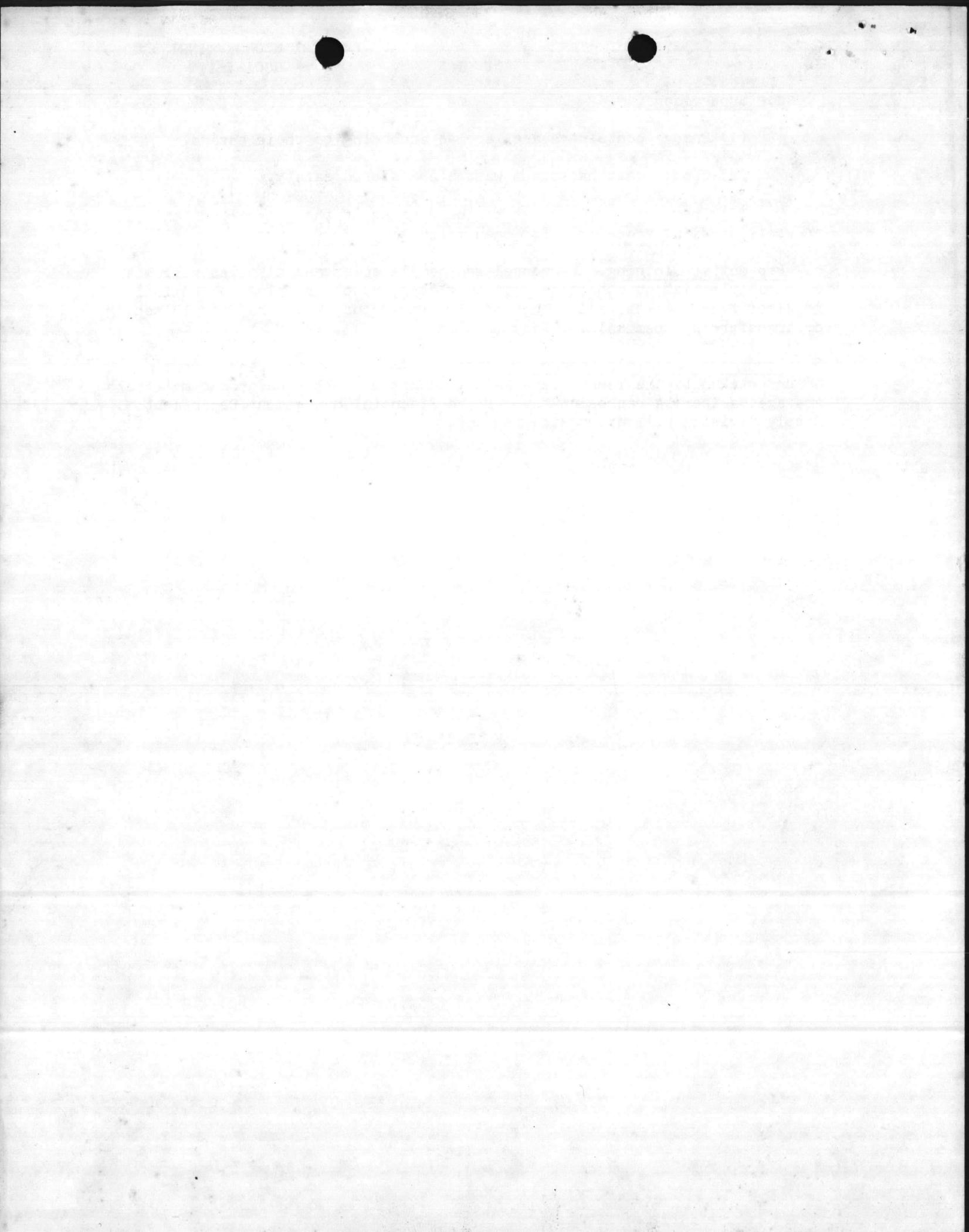
(1) Ensure containers are labeled according to their hazard.

(2) Ensure that hazardous wastes are stored safely.

(3) Instruct personnel as to the meaning of the classification code and safe handling procedures for each material.

5. Protective Clothing. Personnel who handle acids and alkalies will wear chemically resistant rubber or plastic gloves, rubber or plastic chemical goggles, face shields, and rubber or plastic aprons, while handling, issuing or transferring chemicals.

6. Hazardous Materials Control Committee. This committee requirement shall be undertaken by the Technicians Safety Committee. When hazardous materials are agenda items a representative of the Financial Management Department, Supply Division will attend the meeting.



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DESCRIPTION:

Naval Hospital

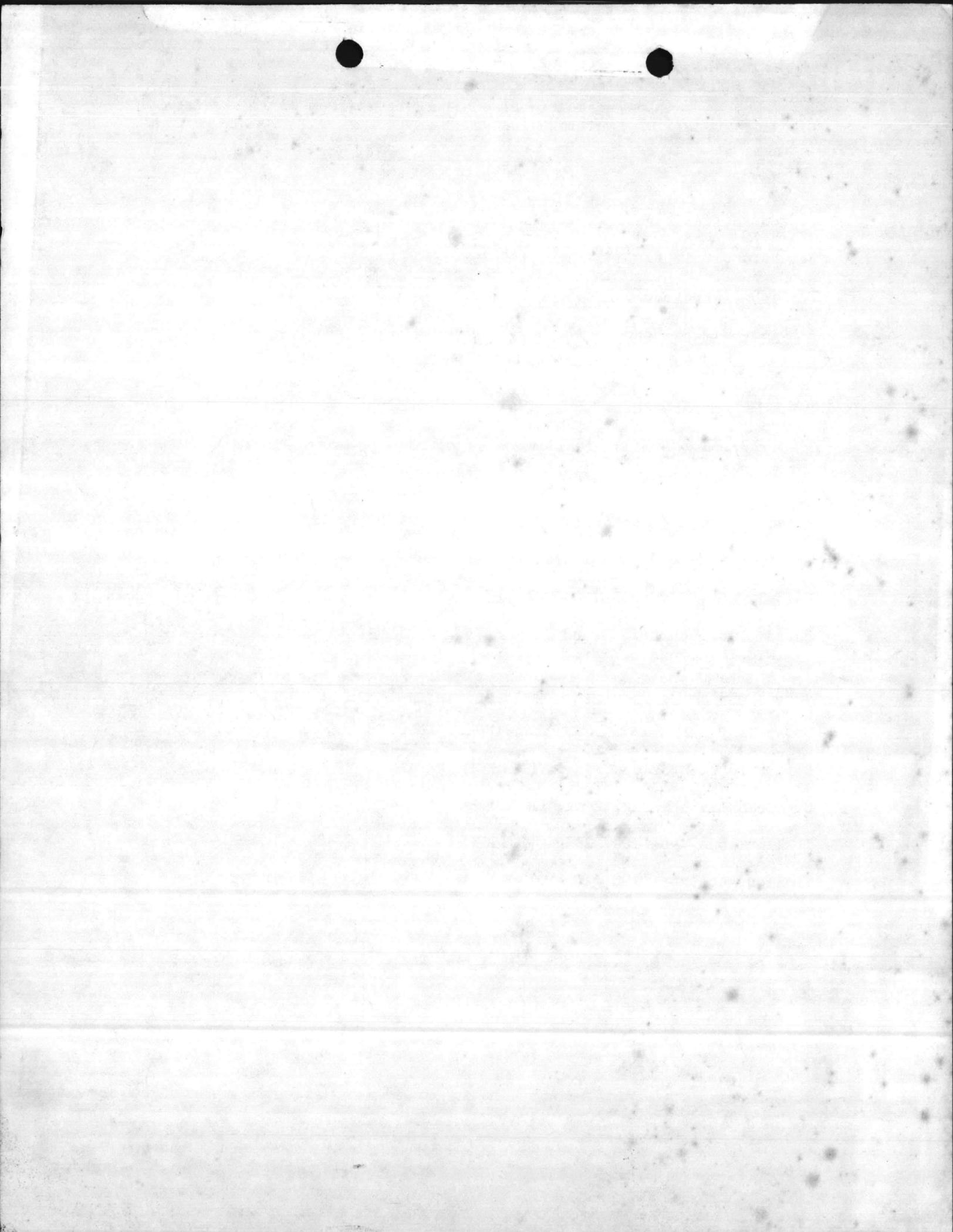
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Lt Graham
apt = 4900

HAZARDOUS MATERIALS located in Flammable Locker (Room 227), Bldg. #65,
awaiting disposal:

ITEM	QUANTITY
Benzene Merck (benzol) 1 lb.	2
Bei Butanol, 1 pt.	1
Ehrlich Reagent Solution (POISON), 1 pt.	1
Ethylene Glycol Monoethyl Ether, 5 gal.	1
Solvent for Mounting Medium, 1 pt.	1
Eastman Pentane, 500 g.	1
1 - Propanol (Normal), 1 qt.	1
Propyl Alcohol Normal, 500 g.	1
Adhesive Liquid, Surgical, 4 oz.	1
Ortho Tolidine, 0.1% Solution, 500 cc	1
Phenol, USP, Crystals (POISON), 1 lb.	2
Paradichlorobenzene, Technical (Dichlorobenzene, Para), 1 lb.	1
N-Butyl Alcohol, ½lb.	1
Rodenticide, General Control (POISON), 1 oz.	78
Carbon Tetrachloride , 1 qt. (POISON)	1
Cupric Sulfate Merck, 2 oz. (POISON)	1
Thallium(ous) Acetate, 25 g. (POISON)	1
Thalious Acetate, 100 g. (POISON)	1





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